Curriculum Aligned Competency Based Test Items
Mathematics
Class - 7

Central Board of Secondary Education

Acknowledgements

Patrons

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Curriculum Aligned Competency Based Test Items
Class 7
Foreword

The National Education Policy (2020), Government of India, envisions transforming school education by equipping students with 21st century skills. The endeavour is to shift focus from rote-learning to acquisition of competencies with a resolve to make education more meaningful and relevant.

The Central Board of Secondary Education (CBSE) in its continuous endeavour to improve the quality of education has already introduced some initiatives in this direction. Strengthening these efforts, the Board had signed an MoU with Sri Aurobindo Society (SAS), Pondicherry in November 2019. As a part of this initiative, SAS is supporting CBSE to develop resource materials, train teachers and take other measures that would facilitate adoption of Competency Based Education in schools. SAS has engaged with Australian Council for Educational Research (ACER) as its knowledge partner for this project.

CBSE, in collaboration with SAS and ACER, has prepared this resource material- ***Curriculum Aligned Competency Based Test Items (Class 7)*** in February, 2022 which is a compilation of assessment items in Mathematics that are aligned to the NCERT/CBSE curriculum. These tasks based on authentic real life situations focus on developing critical understanding among learners in the discipline. Each test covers about 10 questions from a chapter. The assessments, useful for students' practice, are also exemplars for teachers who with their ingenuity can develop many similar items.

— Team CBSE

About CBSE

The Central Board of Secondary Education (CBSE) is a national Board under the Ministry of Education, Government of India. The Board has more than 27,000 schools affiliated to it in India and overseas, in 25 countries. These include the Kendriya Vidyalayas, the Jawahar Navodaya Vidyalayas, schools run by Central Government organizations such as The Army, Navy, Air Force etc., schools run or aided by the State Governments and independent private schools. The Board's mission is to encourage quality of education focussed on holistic development of learners. It motivates schools and teachers to adopt learner centric enquiry-based pedagogies and use innovative methods to achieve academic excellence. The Board is committed to providing a stress-free learning environment to develop competent and confident students who emerge as enterprising citizens of tomorrow, promoting harmony and peace in the world.

About SAS

Sri Aurobindo Society (SAS) is an international, spiritual, and cultural, not-for-profit NGO. SAS has been recognised by the Government of India as a Charitable Organisation, a research institute and an institute of national importance. Sri Aurobindo Society has more than 300 centres and branches across the country, with its head office in Puducherry. SAS is setting up models, centers of excellence and training institutions that are sustainable, scalable and replicable in the country.

About ACER

Australian Council for Educational Research (ACER) is a leading and pioneer international organization working in the field of competency based learning. ACER has been instrumental in coordinating a consortium of international organizations for the implementation of the Programme for International Students Assessment survey in 2000, 2003, 2006, 2009 and 2012.

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Class 7 – Chapter 1
Integers

A funfair has activities for both children and adults. Activities can have group or pair or individual participation. The winner in an activity is decided on the basis of scores. For some activities there are penalties. Penalty points are subtracted from the scores.

This table below shows the details about the games and their scoring.

Game Name	Participation	Activity	Scoring/Penalty
Car Racing	Individual	Cars to race on a 4 metre wide, 1 kilometre long circular track. Flags are posted at an interval of 150 metres, on the track. Participants have to avoid the flags during the race.	**Score points** The participant who reaches the finish line in the least amount of time gets 60 points 10 points are awarded for avoiding a flag. **Penalty points** 10 points are deducted for knocking a flag down.
Trampoline Jumping	Individual	Jump 75 cm or more as many times as possible in 1 minute	**Score points** 5 points for each jump more than or equal to 75 cm **Penalty points** 2 points will be deducted for jumps below 50 cm.

Archery	Individual	Shoot an arrow on a target board.	**Score points** **Penalty points** 10 points will be deducted if the arrow does not hit the board.
Paint ball (for adults only)	Group	Find a crown and hit opposite teams with a paint ball.	**Score points** 20 points for each paint ball hit on an opponent. 100 points for getting the hidden crown **Penalty points** 10 points for each paint ball hit received
Jumping Jack (for adults only)	Pair	Tie shoe laces with the partner and reach the destination without falling	**Score points** 50 points for reaching the destination Additional 10 points for reaching the destination first **Penalty points** 10 points for each fall

SAS21M07Q0101

1 Rohan and Samar compete in the car race.
Rohan's car knocked down five flags and Samar's car knocked down one flag. Rohan reached the finish line faster than Samar.
Who is the winner and how many points did he score?

_____

_____

Richa jumped 10 times in Trampoline jumping.
Her jump heights (in cm) are given below.

First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth
38	43	47	56	75	82	75	68	64	59

SAS21M07Q0102

2 Anshu says 'Rohit uses Angle-Side-Angle criterion for construction of triangle ABC'.
Is Anshu correct? Justify your answer.

_____

_____

Jacob and Mariya participated in Archery.
Jacob's scores for five shots are given below.

First shot	Second shot	Third shot	Fourth shot	Fifth shot
0	4	8	10	6

Mariya's scores for three shots are given below.

First shot	Second shot	Third shot
0	4	8

Mariya won the competition.

SAS21M07Q0103

3 How much she did score in her fourth and fifth shots?

_____

_____

SAS21M07Q0104

4 Team Alpha and Beta played the Paint Ball game. Each team had 6 members and each member shot the paint ball three times.
Team Alpha hit the opponent team 12 times. Team Beta hit the opponent team 15 times.
Which team got more penalty points and how many penalty points did they get?

_____

_____

SAS21M07Q0105

5 In another match, each member of team Alpha got hit 3 times.
4 members hit back 5 times each and the rest hit back 2 times each.
Which calculation shows the team's score?

A. $6 \times [3 + (-10)] + 4 \times (5 + 20) + 2 \times (2 + 20)$
B. $6 \times [3 \times (-10)] + 4 \times (5 \times 20) + 2 \times (2 \times 20)$
C. $6 + [3 + (-10)] + 4 + (5 + 20) + 2 + (2 + 20)$
D. $6 + [3 + (-10)] + 4 + (5 + 20) + 2 + (2 + 20)$

SAS21M07Q0106

6   Team A and Team B participated in Jumping Jack competition. Team B reached the destination first. Can both team score equal points? Justify your answer.

_____

_____

SAS21M07Q0107

7   Joya played the following games.
Archery- Three shots with scores 10, 8 and 2.
Trampoline Jumping – Five jumps with scores 0, 5, 5, 5 and -2.
Jumping Jack - She lost the game and fell three times.
In which two games, are her scores equal?

_____

_____

Horizon Glacier is a cold place. The average temperature of the place is less than zero.
The maximum and minimum temperature (in °C) recorded for seven days in a week are given below.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
-13° -23°	-13° -24°	-14° -24°	-13° -22°	-15° -23°	-14° -23°	-12° -21°

SAS21M07Q0108

8   What was the lowest temperature recorded in the week?

   A.   −8°C
   B.   −12°C
   C.   −21°C
   D.   −24°C

SAS21M07Q0109

9   The average maximum temperature of Horizon Glacier for the week was –13.5°C.
On which days was the maximum temperature greater than the average maximum temperature?

_____

_____

SAS21M07Q0110

10 What is the difference between the maximum and minimum temperature on Friday?

_____

_____

Curriculum Aligned Assessment Items
Mathematics
Class 7 – Chapter 2
Fractions and Decimals

Shalini, Amber and Anant have dinner together. The bill for the dinner is Rs 3277.50.
They divide it among themselves.

SAS21M07Q0201

1 Shalini pays first, she rounds her share amount to the nearest tens.
Amber pays next, he rounds his share amount to the nearest rupees.
The remaining amount is paid by Anant.
What is the amount paid by Anant?

_____

_____

SAS21M07Q0202

2 They have some starters, some drinks and the main course in the dinner.
One-third of the bill was for drinks and one-fifth for starters.
What amount is paid for the main course?

A.   Rs 409.68
B.   Rs 1092.50
C.   Rs 1529.50
D.   Rs 1748.00

SAS21M07Q0203

3 During the dinner, they have six glasses of drinks. Amber has one-half of them and Shalini has one-third of them. Anant has rest of them.
How many glass/es does Anant have?

_____

_____

Insulin is a hormone made by the pancreas in the human body. It helps to regulate blood sugar level and absorbs glucose to get energy. The number of required units of insulin varies according to the individual.

In some cases, an individual body is not able to produce sufficient amount of insulin. For those individuals, supplementary units of insulin are injected into the body.

4 A doctor uses this formula to calculate the daily insulin units required for Prakhar's body.
Daily insulin requirement (units) = 0.55 × Total body mass (kilograms)

Prakhar's body mass is 80 kg.
What is Prakhar's daily insulin requirement?

_____

_____

5 Insulin also helps in disposing of carbohydrates in the human body.
In Prakhar's body, 14.5 insulin units dispose of 290 grams of carbohydrate.
How many grams of carbohydrates are disposed of by 1 insulin unit?

A.   200
B.   20
C.   2
D.   0.2

An online game has 50 levels. A gamer is in the Gold team until he cross $\frac{3}{4}$ of the total levels. After that he is in the Platinum team.
This table shows the rewards unlocked after completing various levels.

Levels completed	Rewards
More than or equal to $\frac{4}{5}$ levels	Jeep
More than $\frac{3}{5}$ levels but less than $\frac{4}{5}$ levels	Dress
More than $\frac{2}{5}$ levels but less than $\frac{3}{5}$ levels	Face mask
More than $\frac{1}{5}$ levels but less than $\frac{2}{5}$ levels	Badge

6 Mita completed 37 levels.
Which reward would she get? Justify your answer.

_____

_____

SAS21M07Q0207

7 Mayank is at level 15 in the game. In which team, would he play?

_____

_____

> Carat (K) is a unit to measure the purity of gold. The higher the carat, the purer the gold. 24K gold is considered as the purest gold with no traces of any other metal in it.
> 22K gold has 2 parts other metals present in it.

SAS21M07Q0208

8 Puneet is a jeweller. He wants to make 18K gold jewellery from 22K gold.
   What percent of other metals are to be added to the 22K gold?

_____

_____

SAS21M07Q0209

9 Countries have their own minimum acceptance standard for an item to be called a gold item.
   The minimum accepted standard of gold is 10 carat in the US and 8 carat in Denmark.
   What is the difference in percentage of gold between the standards set by the two countries?
   Round your answer to the nearest whole number.

_____

_____

> The Bureau of Indian Standards (BIS), certifies the purity of gold jewellery using hallmark codes.
> The BIS hallmark codes for gold jewellery are given below.
>
> | Hallmark code | Purity of gold jewellery (Carats) |
> |---|---|
> | 22K916 | 22 |
> | 18K750 | 18 |
> | 14K585 | 14 |

SAS21M07Q0210

10 Riya purchased a gold necklace weighing 20 g hallmarked 18K750. How many grams of pure gold are in the necklace?

_____

_____

Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 3
Data Handling

Gaming apps allow users to download and play games in online or offline mode. A play store data shows 20 million downloads of 6 popular games. The table below shows the number of daily active users of the games:

Game	Active users (in millions)
KC	2.07
RJ	1.99
CM	1.82
SN	1.56
CR	1.34
HC	1.20

SAS21M07D0301

1 Around 50% of those who downloaded the games are active users.
Is the statement correct? Give reason to justify your answer.

_____

_____

SAS21M07D0302
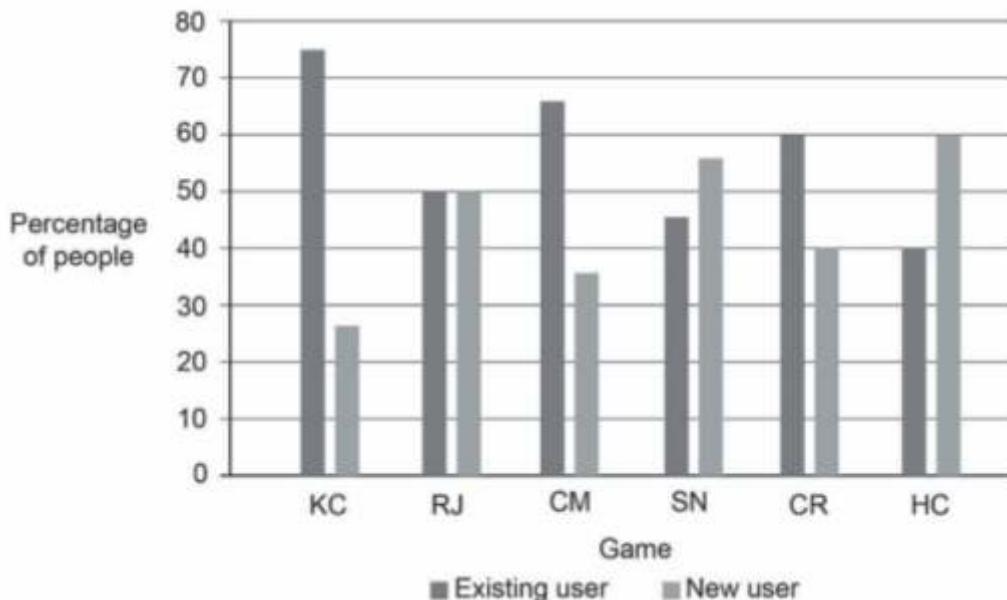
2 Every fourth person who downloaded the games spends more than an hour a day playing them.
What percentage of active players play more than an hour a day?

_____

_____

The graph below shows the percentage of new and existing active users of the games.

SAS21M07D0303

3 In which game the number of existing active users is more than 1.5 million?

A.   KC
B.   RJ
C.   CM
D.   CR

SAS21M07D0304

4 For which game(s) the number of new users is more than the number of existing users?

_____

_____

SAS21M07D0305

5 It has been observed that 50% of the new RJ game users play online with friends.
For existing users, this percentage is 36%.
What is the number of people (in millions) playing RJ game online with friends?

A.   1.39 millions
B.   4.975 millions
C.   8.557 millions
D.   9.95 millions

SAS21M07D0306

6   Mary played 10 HC matches. She scored 45, 36, 50, 27, 36, 52, 50, 43, 50 and 47 points in them. What is the most frequent score point?

    A.   27
    B.   36
    C.   47
    D.   50

SAS21M07D0307

7   Are the mean and median of Mary's scores equal? Justify your answer.

_____

_____

SAS21M07D0308

8   Mary scored 56 points in her 11th match. What is the change in her mean score after the 11th match?
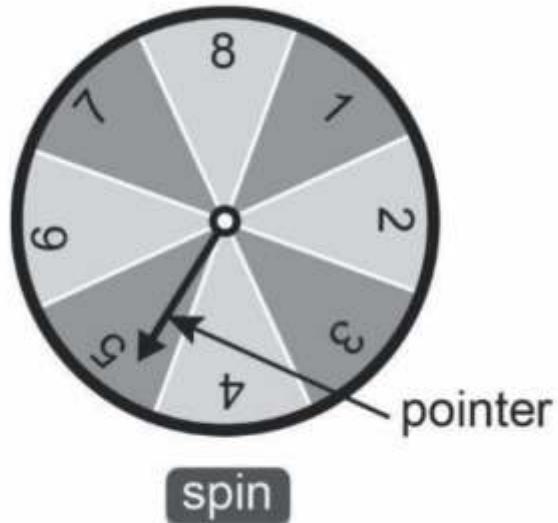
    A   Increases by 1.13
    B   Increases by 5.6
    C   Decreases by 4
    D   Decreases by 3

SAS21M07D0309

9   The highest score in the match is 60 points.
What is the probability of Mary scoring 60 points in her 12th match?

    A.   0

    B. $\frac{1}{12}$

    C. $\frac{1}{5}$

    D. $\frac{1}{2}$

During the HC game, players can spin the wheel to earn points.

10   What is the probability that she earns 6 points?

A.   0

B. $\frac{1}{12}$

C. $\frac{1}{5}$

D. $\frac{1}{2}$

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Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 4
Simple Equations

Multiple gaming tournaments can be played online. In these games, players can compete with players from any part of the world.
In a tournament, 200 points are awarded for a win and 20 points are deducted for a loss.

SAS21M07C0401

1 Chetan participated in the tournament.
He won two more matches than the number of matches he lost.
He scored 1120 points.
How many matches did he play?

A.   6
B.   8
C.   10
D.   14

SAS21M07C0402

2 Diksha played 16 matches in the tournament. The number of matches won was equal to the number of matches lost by her.
How many points did she score?

_____

_____

SAS21M07C0403

3 Drishti and Raghav also participated in the tournament.
Drishti won 10 more matches than the number of matches she lost. Her score was 6140 points.
Raghav lost 15 more matches than the number of matches he won. His score was 6000 points.
Who played more matches? Justify your answer.

_____

_____

4 Prashant says, 'The more you play, the more you score'.
Is his statement always true? Justify your answer

_____

_____

5 In a tournament, some hurdles have to be crossed to achieve the target score of 110 points.
In a match, Shreyas crossed 18 hurdles and scored 45 points.
Shreyas wants to win the tournament.
What is the minimum number of hurdles that have to be crossed?

_____

_____
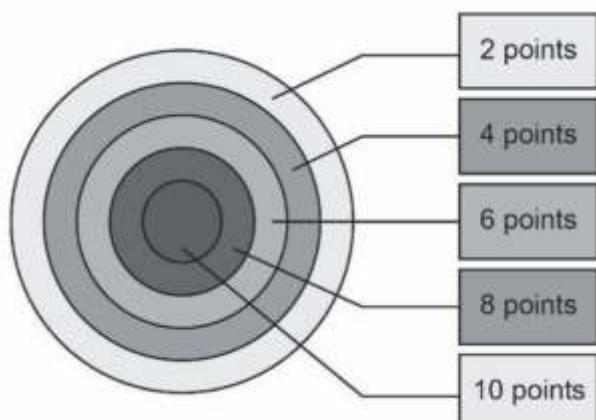
6 Does the solution of an equation depend on the method used to solve it? Justify your answer.

_____

_____

Which of the following represents an equation in one variable?

7

A. $5p + 3$
B. $4 + 2a$
C. $5 + 7 = 12$
D. $5 + 4x = 9$

In an archery game, the points scored on hitting a circular region on a board is shown in the figure below.

2 points
4 points
6 points
8 points
10 points

No point is given when an arrow missed the board. Sharmistha scored only 6 or 4 points in a game. The number of times she scored 6 is five more than the number of times she scored 4. She scored 80 points in the game.

8 Which of the following equation represents Sharmistha's score?

     A. $6x + 4x = 80$
     B. $6x + 4(x + 5) = 80$
     C. $6(x - 5) + 4x = 80$
     D. $6x + 4(x - 5) = 80$

9 How many arrows did Sharmistha shoot?

     A.   10
     B.   11
     C.   15
     D.   30

10 Which of the following equations does '$x = 5$' not satisfy?

     A. $2x - 1 = 9$
     B. $3x + 4 = 19$
     C. $3x + 1 = 13$
     D. $4x - 3 = 17$
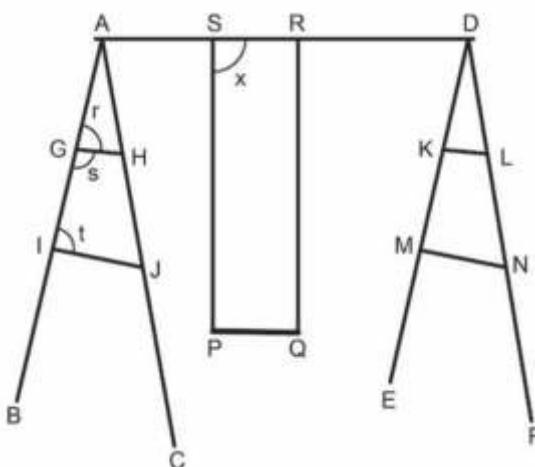
Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 5
Lines and Angles

In the figure given below, AD is a straight line. PS and QR are perpendicular to AD.
GH is parallel to IJ and KL is parallel to MN.

<div align="right">SAS21M07S0501</div>

1 What type of angles are ∠r and ∠t?

    A.   Adjacent angles
    B.   Vertically opposite
    C.   Corresponding angles
    D.   Alternate exterior angles

<div align="right">SAS21M07S0502</div>

2 The measure of ∠s = 120°.
What is the measure of ∠t?

    A.   30°
    B.   60°
    C.   90°
    D.   120°

3 | What is the measure of ∠x?

A.   45°
B.   60°
C.   90°
D.   120°

4 | Why are the lines SP and RQ parallel to each other?

_____

_____

5 | Is DF transversal to KL and MN? Give reason.

_____

_____
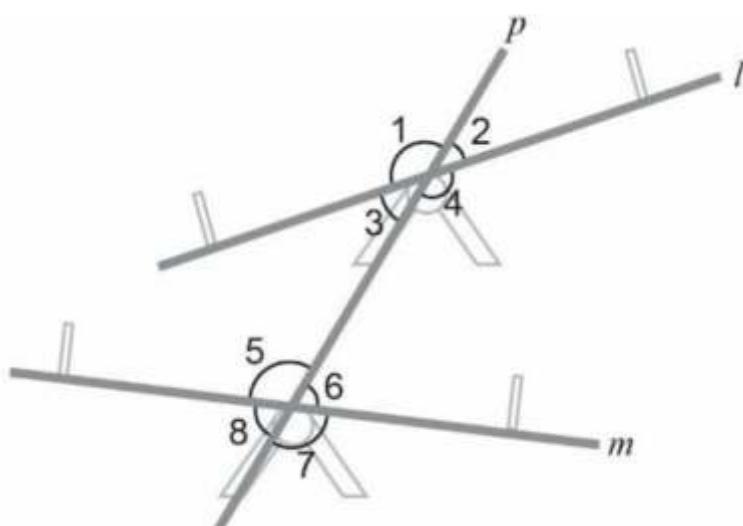
6 | Which of the following is true for DE and DF?

A.   They are parallel
B.   They intersect at A
C.   They intersect at D
D.   They have AD as transversal

A diagram of a see-saw is given below.

7 State all the pairs of vertically opposite angles in the given figure.

_____

_____
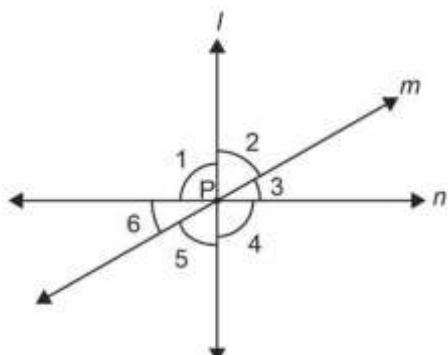
8 Which of the following is a pair of alternate exterior angles?

A.   ∠1 and ∠4
B.   ∠2 and ∠8
C.   ∠3 and ∠8
D.   ∠4 and ∠6

Three lines shown in the figure intersect each other at point P.

Line *l* is perpendicular to line n.
The measure of ∠2 is 65°.

9 What is the measure of ∠6?

_____

_____

10 What is the sum of the measure of ∠3 and ∠4?

A.   95°
B.   115°
C.   120°
D.   155°
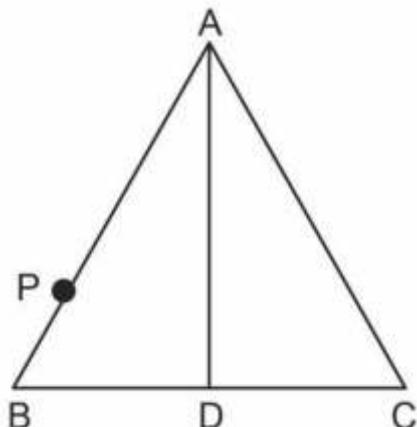
Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 6
The Triangle and its Properties

In an equilateral triangle ABC, the length of AC = 10 cm and altitude AD = 6 cm. P is a point on AB.

The length of BP = $4x$ – 1. The length of PA = $3x$ + 4

SAS21M07S0601

1 What is the length of BP?

A. 1 cm
B. 3 cm
C. 5 cm
D. 10 cm

SAS21M07S0602
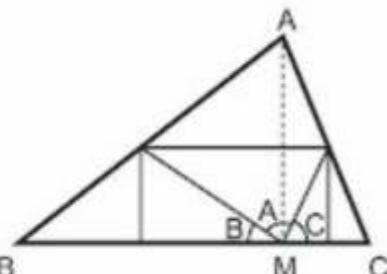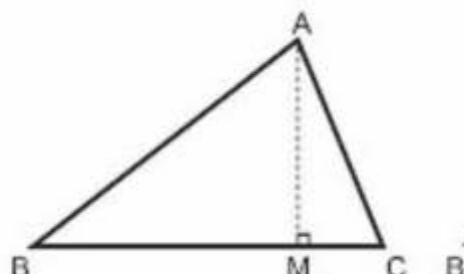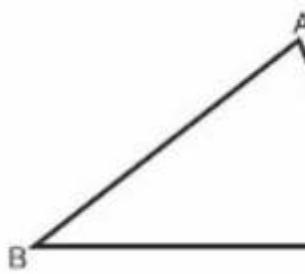
2 What is the length of the median on BC?

A. 3 cm
B. 5 cm
C. 6 cm
D. 10 cm

Anshu cuts a paper triangle ABC.
He folds the paper perpendicular to BC such that it passes through the vertex A. He marks the point where the fold crosses BC as M. He unfolds the paper.
He again folds all the three corners such that vertices A, B and C touch M without overlapping.

Anshu's method

Radhika performs a similar activity. She marks M by folding ΔABC such that it halves the side BC. When she folds the three corners such that vertices A, B and C touch M, unlike Anshu, the paper corners overlap.

SAS21M07S0603

3 What can be the reason for overlapping?

_____

_____
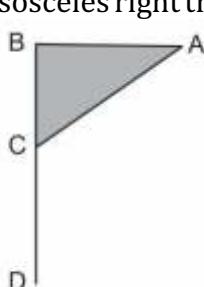
SAS21M07S0604

4 Why is the existence of a triangle with an exterior angle of measure 180° not possible?

_____

_____

Pratibha made a paper flag by pasting an isosceles right triangle on a stick.

SAS21M07S0605
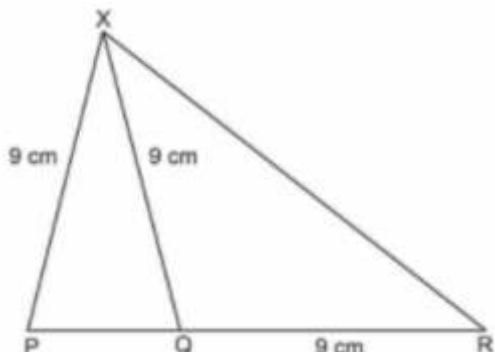
5 What is the measure of ∠ACD?

_____

_____

In the figure shown below, PQR is a straight line.
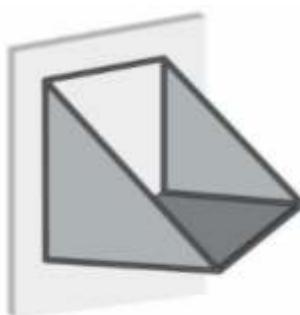
The measure of ∠PXQ = 20°.

6   What is the measure of ∠PXR?

_____

_____

A shelf with a triangular frame is fixed on a wall as shown below.

The lengths of the rods used in the shaded triangular frame are 48 cm, 55 cm and 73 cm.

7   What is the type of the shaded triangle?

     A.   Obtuse triangle
     B.   Isosceles triangle
     C.   Equilateral triangle
     D.   Right-angled triangle
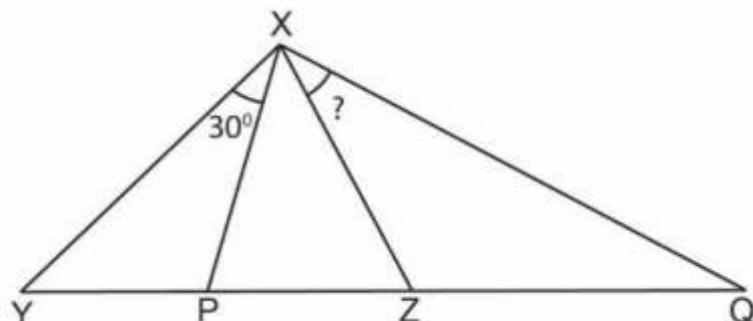
8   What can be the height of the shelf?

_____

_____

In the triangle XYZ, the median XP is half the length of the side YZ.
In the triangle, XZQ, XZ = ZQ.

SAS21M07S0609
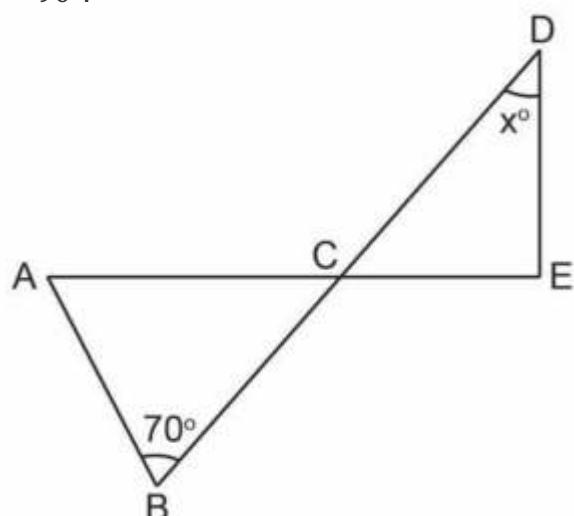
9   What is the measure of ∠ZXQ?

_____

_____

In the triangle ABC below, AC = BC.
In the triangle DCE, ∠CED = 90°.

SAS21M07S0610

10   What is the value of 'x'?

A.   40
B.   50
C.   60
D.   70

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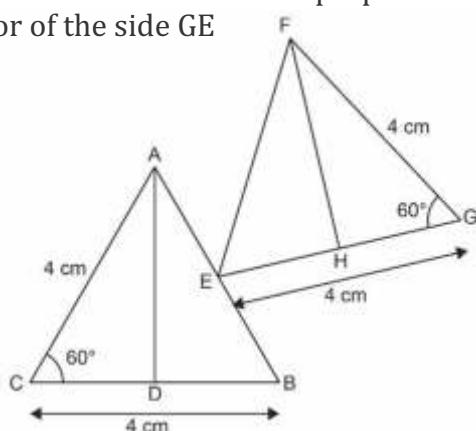
Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 7
Congruency in Triangles

Given below are two triangles ACB and FGE. AD is the perpendicular bisector of the side CB and FH is the perpendicular bisector of the side GE

SAS21M07S0701

1 Is the line segment AB equal to EG? Give reasons.

_____

_____

Raghavan shows that two triangles are congruent using the steps below.
AC = FG
∠C = ∠G
CD = GH
Thus, ΔACD ≅ ΔFGH

SAS21M07S0702

2 Which criterion was used by Raghavan to prove the congruence of the two triangles?

A. SSS
B. SAS
C. ASA
D. RHS

3 Aditi claims that ΔABC is an equilateral triangle.
Is she correct? Justify your answer.

_____

_____
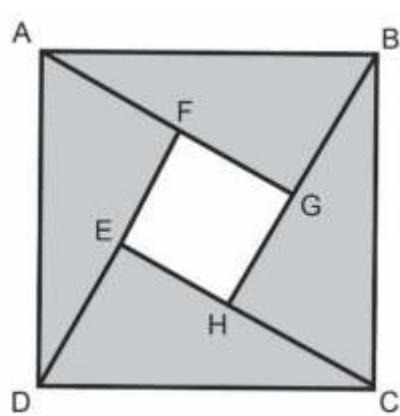
4 Rohit claims that 'ΔABC can be proved to be congruent to ΔFGE by using all the four congruence criteria.'
Is his claim valid? Give reasons.

_____

_____

5 Two triangles are congruent when their three corresponding sides are of equal measure. Is it the same when the three corresponding angles are equal? Give reasons.

_____

_____

ABCD and EFGH are squares.
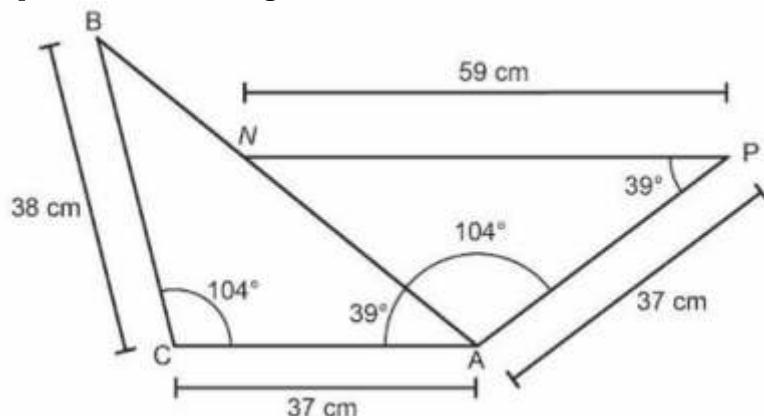
6 Which congruency statement is not true?

A. ΔAGB ≅ ΔBHC
B. ΔBHC ≅ ΔCED
C. ΔCED ≅ ΔDFA
D. ΔDFA ≅ ΔDEF

The figure below represents two triangles ACB and PAN.
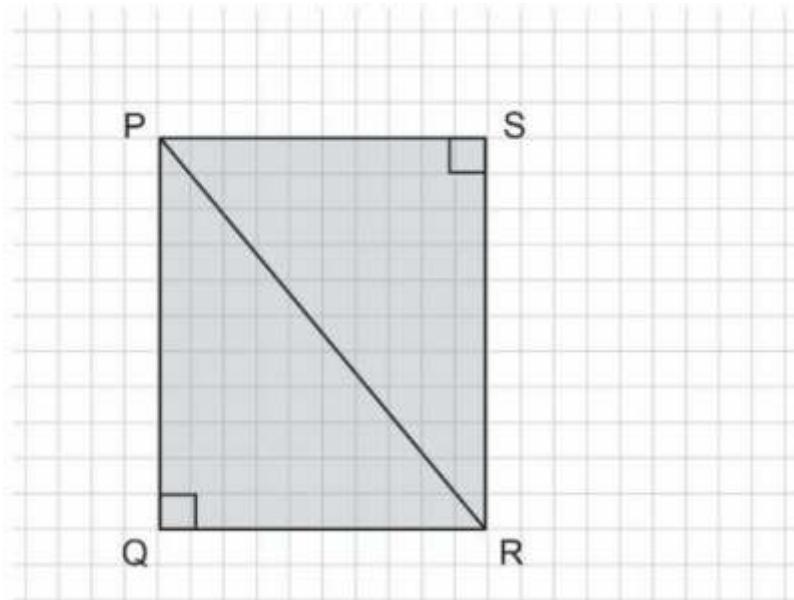
7 By which congruence criterion is ΔACB congruent to ΔPAN?

A. SSS
B. SAS
C. ASA
D. RHS

Gutam draws two triangles PQR and PSR on a grid.

Each block on the grid represents one unit.

8 Are the two triangles congruent? Give reasons.

_____

_____

SAS21M07S0709

9   Which angle is equal to ∠PSR?

    A.   ∠PRQ
    B.   ∠PQR
    C.   ∠SRP
    D.   ∠SPR

SAS21M07S0710

10   Which of the following line segments is equal to PS?

    A.   QR
    B.   PQ
    C.   SR
    D.   PR

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CENTRAL BOARD OF SECONDARY EDUCATION

Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 8
Comparing Quantities

Liquefied gas is a type of fuel used in cars and other vehicles. After petrol and diesel, liquefied gas is the third most popular fuel in the world. For the past two decades, it has been used as an alternative for petrol worldwide.

SAS21M07N0801

1 In the year 2019, worldwide consumption of liquefied gas was 27 million tonnes, whereas in India, its consumption was 0.42 million tonnes.
What is the ratio of consumption of liquefied gas in India to worldwide?

_____

_____

SAS21M07N0802

2 In the year 2019, India consumed 28.3 million tonnes of petrol and 83.5 million tonnes of diesel.
Is it correct to say that in the year 2019, the consumption of diesel was less than three times the consumption of petrol in India? Give reasons.

_____

_____

SAS21M07N0803

3 The cost of per litre petrol in New Delhi on 11 August, 2021 was Rs. 101.84. On the same day, the cost of one litre of liquefied gas was 60% less than the cost of petrol in New Delhi.
Which of the following could be the cost of liquefied gas?

A.   Rs. 38.56
B.   Rs. 61.27
C.   Rs. 142.58
D.   Rs. 162.94

4   Liquefied gas contains gases like butane and propane. The percentage of both butane and propane in liquefied gas varies from 100% of propane to 20% of propane.
One litre of liquefied gas weighs 510 g in which the mass of propane gas is 357 g.

Which of the following shows the percentage of propane gas present in 1 L of the liquefied gas?

A.   20%
B.   30%
C.   70%
D.   100%

5   Parvez wants to use liquefied gas in his car. He needs to install a liquefied gas kit in his car. The kit costs Rs. 50,000.
To install the kit, he paid Rs. 5000 and has availed a loan of Rs. 45,000 at a rate of 10% per annum using simple interest. The repayment period for him is 1 yr.
What is the total sum of money (in rupees) Parvez has to pay in 1 yr?

_____

_____

Online shopping has increased in the past few years. There are several apps and websites available which allow buyers to purchase goods online.

---

6   In a survey, every three out five people prefer online shopping over shopping from the local market.
What percentage of people in the survey prefer shopping from the local market?

_____

_____

7   The marked price of a hot water geyser is Rs. 9000. It is available at a discounted price for Rs. 7560 on an online shopping website.
What is the percent reduction in the cost of the geyser?

_____

_____

8 Misha spent Rs. 15,000 for groceries and home products last month. She shopped online as well as from the local market. The amount of money she spent on online shopping is three times the amount she spent on shopping from the local market.
What percentage of money did Misha spend by shopping online?

_____

_____

9 Nisha purchased 20 pairs of earrings for Rs. 200. She pasted colourful beads on the earrings with glue. The beads cost her Rs. 30 and a tube of glue to stick the beads costs Rs. 20.
She sold each pair of earrings for Rs. 40.
After selling all the earrings, how many rupees did she make as profit?

A. Rs. 250
B. Rs. 550
C. Rs. 600
D. Rs. 800

10 What percentage profit did Nisha make?

A. 68.75%
B. 220%
C. 320%
D. 1375%

Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 9
Rational Numbers

Different websites offer the same phone at different prices. A Rs. 15,000 mobile phone is available at $\frac{4}{5}$ of its marked price on Website A. Website A gives an additional discount equivalent to $\frac{1}{10}$ of the phone price at check out. Website B offers the same mobile phone model at $\frac{2}{5}$ of its price with no further discount at checkout.

SAS21M07N0901

1 At what price is the mobile phone offered by Website A?

_____

_____

SAS21M07N0902

2 At what fraction of the original price is the phone available at check out on Website A?

A. $\frac{3}{10}$

B. $\frac{7}{10}$

C. $\frac{5}{15}$

D. $\frac{4}{50}$

SAS21M07N0903

3 Which website sells the phone at a more economical price? Give reasons.

_____

_____
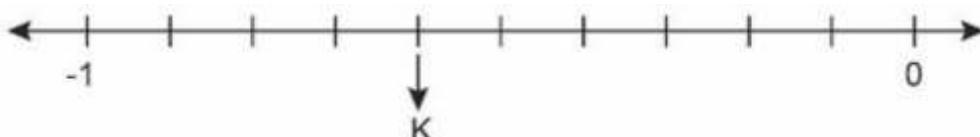
SAS21M07N0904

4 In which of the following options does Point K represent $-\frac{1}{5}$ on the number line?
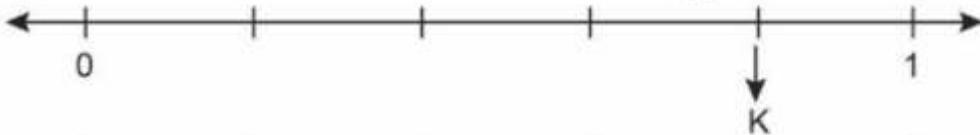
A.

B.

C.

D.

SAS21M07N0905

5 The product of a negative rational number with its multiplicative inverse is –1.
Do you agree? Give examples to support your answer.

_____

_____
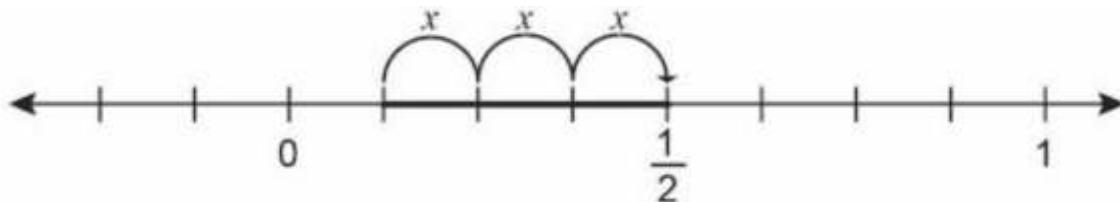
SAS21M07N0906

6 Addition of a rational number to its additive inverse results in 0.
Is this statement true for all rational numbers? Give examples to support your answer.

_____

_____

SAS21M07N0907

7 Find three rational numbers between 3 and 4.

_____

_____

A mathematical operation of rational numbers is shown on the number line.

8 Which operation is it?

    A.   Addition
    B.   Subtraction
    C.   Multiplication
    D.   Division

9 Which number will come in place of x?

_____

_____

10 Solve: $\dfrac{7}{10} , \dfrac{5}{10}$

    A. $\dfrac{5}{7}$

    B. $\dfrac{2}{10}$

    C. $\dfrac{7}{5}$

    D. $\dfrac{35}{135}$
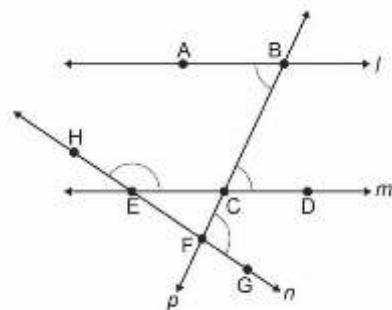
Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 10
Practical Geometry

In the figure below the line *l*, is parallel to the line m.

SAS21M07S1001

1   Which of the following statement is true for the lines l and m?

    A.   Line *l* never meets with line *m*
    B.   Lines *l* and *m* have common points
    C.   Line *l* intersects line *m* perpendicularly
    D.   Lines *l* and *m* cannot be intersected by one line

SAS21M07S1002

2   Name the line which cuts line *l*.

_____

_____

SAS21M07S1003

3   Which line is intersected the most number of times?

    A.   *l*
    B.   *m*
    C.   *n*
    D.   *p*

4   Which pair of angles are alternate interior angles?

A.   ∠ABC and ∠BCD
B.   ∠BCD and ∠DCF
C.   ∠HEC and ∠BCD
D.   ∠ABC and ∠CFG

5   Which of the given equalities will always be true?

A.   ∠HEC = ∠CFG
B.   ∠HEC = ∠BCD
C.   ∠BCD = ∠CFG
D.   ∠BCD = ∠ABC

> Rohit draws a triangle as described below using some given parameters.
>
> Step 1: He draws a line segment AB of the given length.
> Step 2: He draws a long arc using a given radius from A.
> Step 3: He draws another arc from B with a given radius cutting the arc drawn in step 2.
> Step 4: He joins the point of intersection C of the arcs with points A and B.

6   What parameters were given to Rohit?

A.   The three side lengths were given
B.   The two angles measure and one side length were given
C.   The two side lengths and one angle measure were given
D.   The two side lengths and right angle specifications were given

7   Anshu says 'Rohit uses Angle-Side-Angle criterion for construction of triangle ABC'.
Is Anshu correct? Justify your answer.

_____

_____

8   Rohit tried to construct triangle LMN, with MN = 6 cm, LN = 10 cm and MN = 4 cm. He was not successful in constructing the triangle.
What could be the reason for his failure?

_____

_____

SAS21M07S1009

9 Saloni constructed a triangle ABC with angle measures as 45°, 50°, and 85°. Sunita constructed another triangle PQR with the same angle measures.
Is it necessary that the side lengths of triangles ABC and PQR would also be the same? Justify your answer.

_____

_____

SAS21M07S1010

10 Which of the following criteria cannot be used to construct an equilateral triangle?

A.   Side-Side-Side
B.   Side-Angle-Side
C.   Angle-Side-Angle
D.   Right angle-Hypotenuse - Side
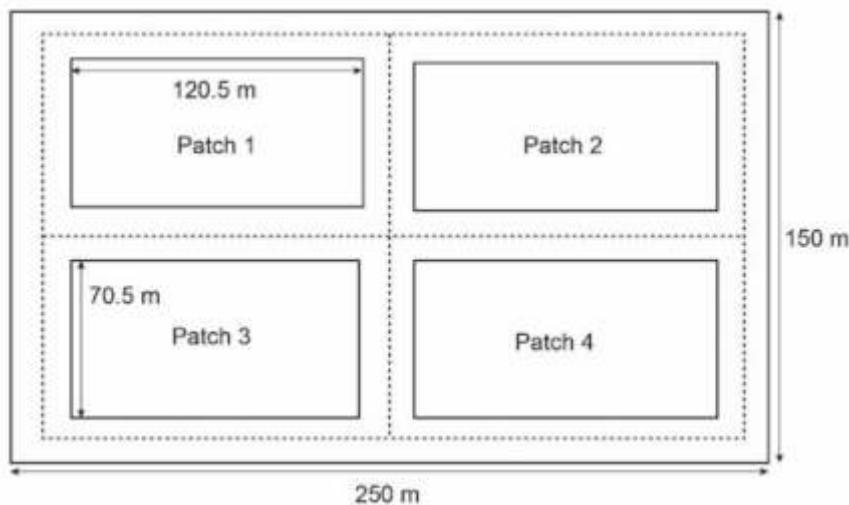
Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 11
Perimeter and Area

Given below is the map of a society park.

The park has four grass patches of equal area.
The dotted line represents the path for running and jogging.

SAS21M07S1101

1 What is the perimeter of grass patch 1?

A.   191 m
B.   382 m
C.   800 m
D.   1528 m

SAS21M07S1102

2 What is the area of the running and jogging path?

A.   3519 m²
B.   3600 m²
C.   8495.25 m²
D.   37,500 m²

3 Two sitting benches are installed in the grass patches. The seat of each bench is of the length 1.2 m and width 0.7 m. How much area (in m^2) is reserved for sitting in the park?

    A.   0.84
    B.   1.68
    C.   3.36
    D.   6.72

4 The patch 2 is divided diagonally into two triangles of equal areas. Tulips are planted in one triangular area. What is the area in which the tulips are planted?

    A.   2831.75 m^2
    B.   4247.625 m^2
    C.   8495.25 m^2
    D.   18,750 m^2

5 Inside the grass patch 4, lily flowers are planted to make a 1.25 m wide bed. The length of the bed is same as the length of the patch. What is the area (in m^2 covered by lillies)?

    A.   88.125
    B.   150.625
    C.   243.5
    D.   8645.875

6 Swings are installed for kids at the centre of grass patch 3. The area reserved for the swings is square in shape with a width of 40 m. What is the remaining area of grass patch 3 after the swing installation?

_____

_____
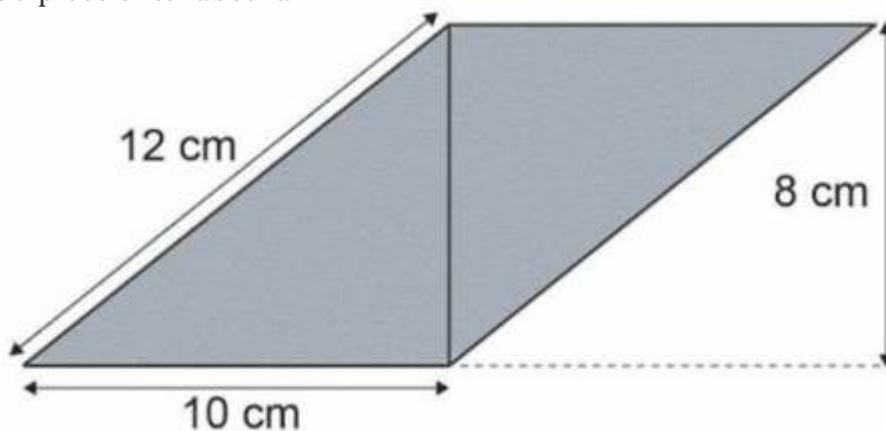
7 One room in Joseph's house has a circular glass roof. The diameter of the roof is 2.8 m. What is the area of the glass roof?

_____

_____

SAS21M07S1108

8   The circular frame of the glass roof is made of wire. What is the length of the wire?

    A.   6.16 m
    B.   8.8 m
    C.   17.6 m
    D.   12.32 m

Given below is a piece of cardboard.

SAS21M07S1109

9   What is its area?

_____

_____

SAS21M07S1110

10   Jatin placed another cardboard of same size along the 12 cm long edge. . What is the perimeter of the combined shape?

_____

_____

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Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 12
Algebraic Expressions

> The costs of entry tickets to an amusement park are different for adults and children. An adult ticket costs Rs 800 and a child ticket costs Rs 500.

1 On Sunday, x adult tickets and y child tickets were sold. Which of the following expressions show the money collected through the ticket sale?

A. $1300x$
B. $800x + 500x$
C. $800x + 500y$
D. $(800 + 500)(x + y)$
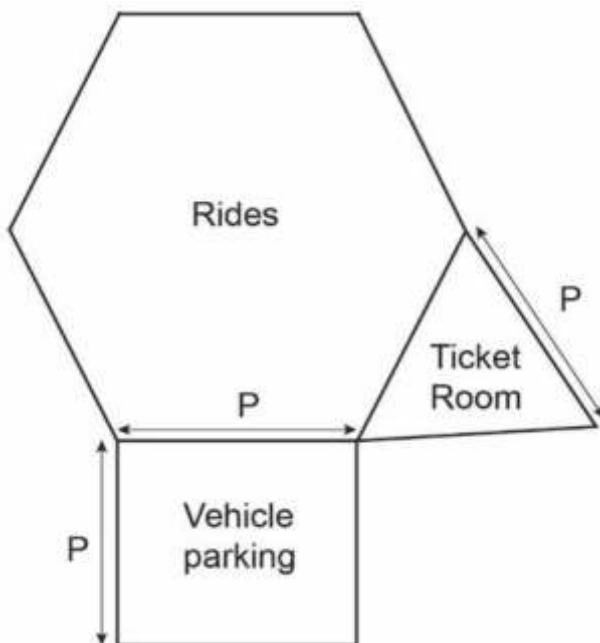
2 A car parking ticket at the amusement park costs Rs 150 on Saturdays and Sundays and Rs 100 on weekdays. In a month with 5 Saturdays and 4 Sundays, the total parking ticket sale was worth Rs 250,000. Write an equation to represent the situation algebraically.

_____

_____

3 On Monday, the number of adults who visited the amusement park was the square of the number of children who visited. How much money was collected by selling entry tickets on Monday?

A. x^2
B. $800x^2 + 500x$
C. $800x + 500x^2$
D. $1300(x + x^2)$

The amusement park is divided into three regular-shaped sections for rides, ticket room and car parking respectively.

4   What is the perimeter of the amusement park?

A. $6P$
B. $8P$
C. $9P$
D. $11P$

5   What area of the amusement park is occupied by the parking space?

_____

_____

Riya wrote an algebraic expression.
$56t^3 + 12t^2 + 6t + 16s^2 + 2s + 106$

6   Which of the following terms has 6 as the coefficient?

A. s
B. s^2
C. t
D. t^3

SAS21M07C1207

7 Write the factors of $56t^3$.

_____

_____

SAS21M07C1208

8 What is the type of the algebraic expression written by Riya?

A. Monomial
B. Binomial
C. Trinomial
D. Polynomial

SAS21M07C1209

9 Riya said, "There are two like terms in the algebraic expression." Is Riya correct? Give reason.

_____

_____

SAS21M07C1210

10 Riya added an algebraic expression to $56t^3 + 12t^2 + 6t + 16s^2 + 2s + 106$. The resultant expression is $14t^2 + 7t + 9s$. Which of the following algebraic expressions did she add?

A. $56t^3 + 2t^2 + t - 16s^2 + 7s + 106$
B. $-56t^3 + 2t^2 + t - 16s^2 + 7s - 106$
C. $-56t^3 - 2t^2 - t - 16s^2 - 7s - 106$
D. $56t^3 + 26t^2 + 11t + 16s^2 + 11s + 106$

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Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 13
Exponents and Power

Nanoscience is the study of structures and materials of an ultra-small scale. The widely used units to measure length in nanoscience are nanometre and micrometre.
The relations between different units of length are given below.

10^3 nanometre *(nm)* = 1 micrometre *(μm)*
10^6 nanometre *(nm)* = 1 millimetre *(mm)*
10^7 nanometre *(nm)* = 1 centimetre *(cm)*
10^9 nanometre *(nm)* = 1 meter *(m)*

SAS21M07N1301

1   Electron microscopes are used to see very small particles. These microscopes can enlarge an image up to 106 times. A laboratory developed a switch that is 1 nanometre wide. How wide will the switch look when seen under an electron microscope?

A.   1 nanometre
B.   1 micrometre
C.   1 millimetre
D.   1 centimetre

SAS21M07N1302

2   Asha measures the thickness of one sheet of newspaper. A stack of 100 sheets of newspaper is 1 cm thick. What would be the thickness of the newspaper when expressed in nanometres?

_____

_____

3   Scalpel is an instrument used by surgeons in surgery. During an experiment it was found that the size of tip of scalpel can affect the recovery rates of patients.
Two scalpels of tip sizes 0.8 micrometre and 12.5 micrometre were tested.
Patients on whom the scalpel with tip radius 0.8 micrometre was used healed faster.
What is the difference between the radii of the two tips in millimetres?

A. 1.6×10^{-4}
B. 0.8×10^{-3}
C. 1.17×10^{-2}
D. 4.5×10^{-2}

4   Deoxyribonucleic acid (DNA) is found in every cell of almost all living beings including humans. One strand of human DNA is 2.5 nanometres in diameter. What is the diameter of the strand of DNA in meters?

A. 2.5×10^{-10}
B. 1×10^{-9}
C. 2.5×10^{-9}
D. 2.5×10^{9}

5   Research says, "Human fingernail grows one nanometre in one second."
What would be the approximate growth of the fingernail (in cm) in 24 hours?

A. 8.64×10^{-3}
B. 8.64×10^{-2}
C. 8.64×10^{3}
D. 8.64×10^{11}

6   Rajat claims, "A negative number raised to a power is always less than the number itself." Give an example that proves that Rajat is incorrect.

_____

_____

7   Simplify the following.
$\{(92)^4 \times 9^5\} \div 9^8$

_____

_____

8   Assume x and y are two negative numbers. 'The result of the multiplication of x and y with the same positive power is greater than the multiplication of x and y with the same negative power.'
Give an example to support this statement.

_____

_____

> A light-year is the distance light travels in one Earth year. For objects in space, we use light-years to describe the distance between two heavenly bodies.
> One light-year is approximately 9,500,000,000,000 km.

9   Express one light year in metres.

_____

_____

10   Astronomers are observing a star that is 5 light-years away from the Earth. How far is the star from the Earth in kilometres?

    A. 4.75×10^{11}
    B. 47.5×10^{11}
    C. 4.75×10^{12}
    D. 4.75×10^{13}
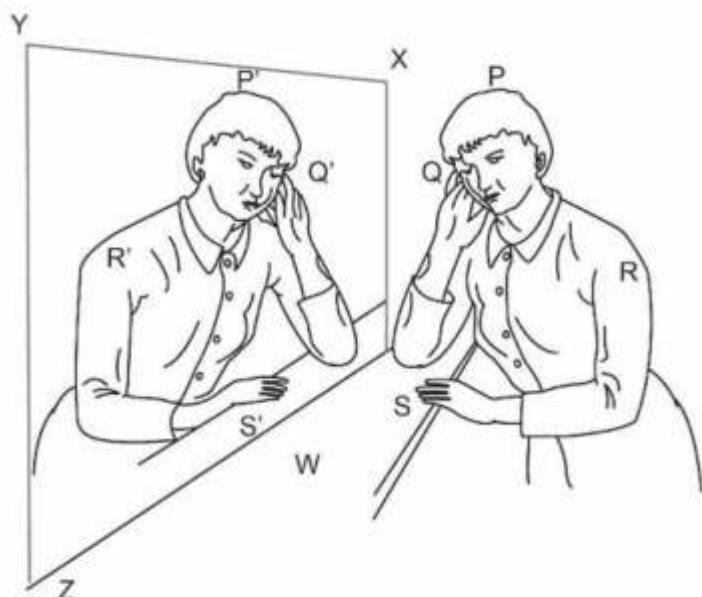
Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 14
Symmetry

The picture shows a girl and her reflection in a mirror.

SAS21M07S1401

1 Can you draw a line of symmetry on this picture? Mention Yes or No. Justify your choice.

_____

_____

SAS21M07S1402

2 The girl has her right hand raised. Why does it look like her left hand in the mirror image?

_____

_____

SAS21M07S1403

3 Points P, Q, R and S are marked on the girl and their mirror reflections P', Q', R' and S' are marked on the image. Which point and its image in the mirror have the greatest distance between them?

A. P and Q
B. Q and Q'
C. R and R'
D. P' and S'
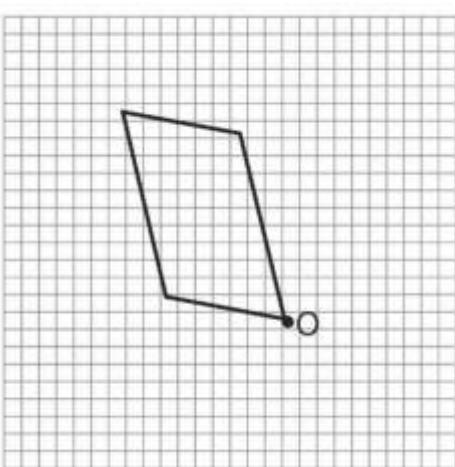
SAS21M07S1404

4 Which type of symmetry does the picture show?

A. Line symmetry
B. Point symmetry
C. Rotation symmetry
D. Reflection symmetry

SAS21M07S1405

5 In the above picture, XYZW is a mirror. Why does it produce a symmetric image? Give your explanation using the points shown in the image.

_____

_____

A quadrilateral is drawn on a square grid. O is the dot marked on one vertex of the quadrilateral.

SAS21M07S1406

6 How many lines of symmetry are there in this quadrilateral?

A. 0
B. 1
C. 2
D. 4

7 Draw three more congruent quadrilaterals around O so that the complete figure has rotation symmetry of order four.

_____

_____

8 Which of the following statements about a parallelogram's symmetry is true?

A.   A parallelogram has neither a line of symmetry nor rotational symmetry.
B.   A parallelogram has a line of symmetry but no rotational symmetry.
C.   A parallelogram has a point of symmetry and rotational symmetry.
D.   A parallelogram has rotational symmetry but no point or line symmetry.

9 Jyoti claims that rotational symmetry of order 1 implies no rotational symmetry. Do you agree or disagree with her claim? Give reasons.

_____

_____

Here is a picture of a car wheel.

10 A what is the order of rotational symmetry for this wheel?

_____

_____

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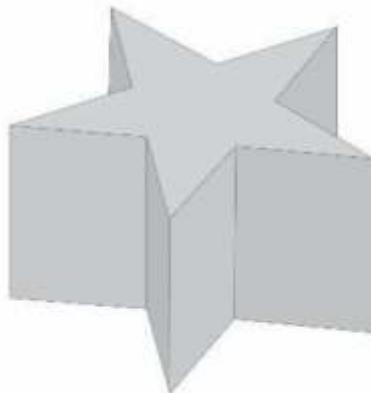
Curriculum Aligned Competency Based Test Items
Mathematics
Class 7 – Chapter 15
Visualising Solid Shapes

> Raveena gives toy erasers as return gifts for her birthday. One of the erasers is shown below.

1 How many edges are there?

A.   17
B.   20
C.   25
D.   30

2 Raveena placed one eraser exactly above another. She claims that the number of faces in the combined shape is the same as that of the single eraser. Do you agree? Explain your answer.

_____

_____

An ice-cream cart has an ice-candy drawn on all sides, except the top and the bottom.

Ice-cream container

SAS21M07S1503

3   Which geometric shape does the ice-cream container resemble?

A.   Cuboid
B.   Cylinder
C.   Cone
D.   Pyramid

SAS21M07S1504

4   How many ice-candies are drawn on the cart?

A.   1
B.   2
C.   4
D.   6

Jayesh chopped carrots this way.
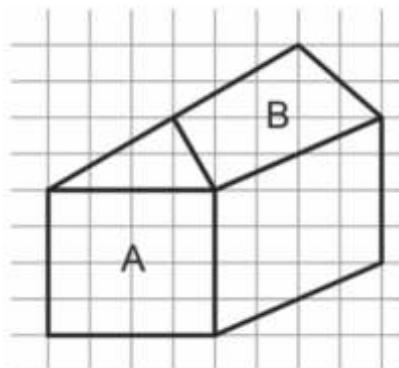
SAS21M07S1505

5   Which geometric shape do the chopped carrots resemble? How many edges does one piece have?

_____

_____
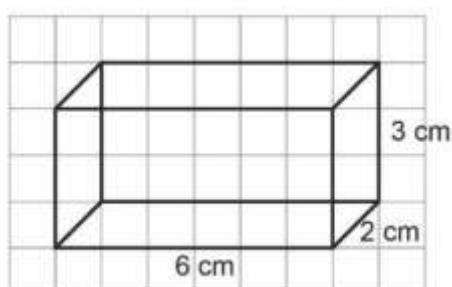
A sketch of a house on a grid is shown below.

6   1 block represents one square unit.
Is face A identical to face B? Explain your answer.

_____

_____
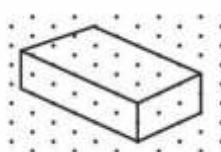
A cuboid with given sides is shown below.
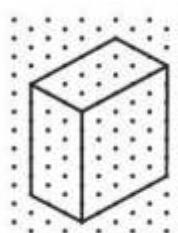
7   Which of the following can be another way of representing the cuboid?
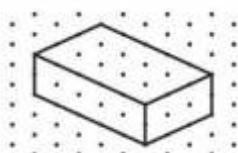
A.
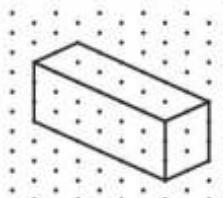
B.
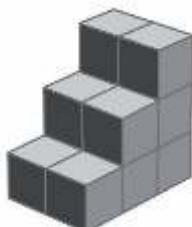
C.

D.

Rajat arranged some cubes as below.

8   How many cubes did he use?

A.   6
B.   9
C.   12
D.   18
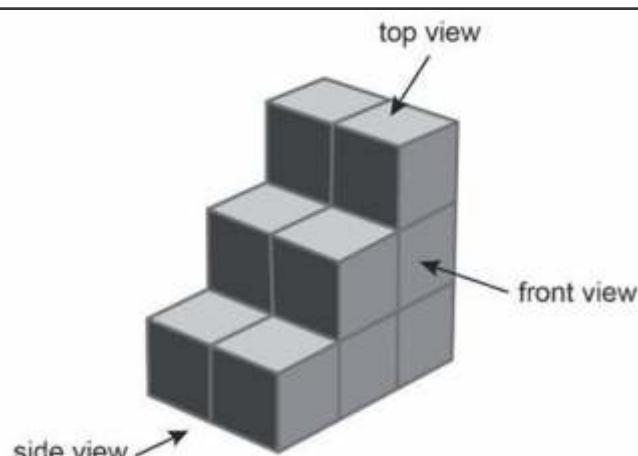
9   "An equal number of cubes are seen in the top, front and side views in this cubical arrangement."
Is the statement correct? Explain your answer.

_____

_____

10   Which of the following shows the side view of the arrangement?

A.   B.   C.   D.

Item Number	Question 1
Question Code	SAS21M07Q0101
Grade & Chapter Name	Grade 7 | Integers
Concept | Sub-concept	Numbers | Integers (Application of Integers)
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Samar, 50 points
Partial Credit (Partial Score)	Either Samar or 50 points
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07Q0102
Grade & Chapter Name	Grade 7 | Integers
Concept | Sub-concept	Numbers | Integers (Application of Integers)
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	9 points
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07Q0103
Grade & Chapter Name	Grade 7 | Integers
Concept | Sub-concept	Numbers | Integers (Application of Integers)
Competency	Interpret & Evaluate
Item Type	Open Constructed Response
Full Credit (Full Score)	Provides any combination that gives a score more than 10 in the two shots For example: • Mariya had to score 8 in her fourth shot and 2 in her fifth shot. • Mariya had to score 6 in both shots.
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07Q0104
Grade & Chapter Name	Grade 7 | Integers
Concept | Sub-concept	Numbers | Integers (Application of Integers)
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Team Alpha. They got 30 more penalty points.
Partial Credit (Partial Score)	Either Team Alpha or 30 points
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07Q0105
Grade & Chapter Name	Grade 7 | Integers
Concept | Sub-concept	Numbers | Integers (Properties of Addition and Subtraction of Integers)
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. $6 \times [3 \times (-10)] + 4 \times (5 \times 20) + 2 \times (2 \times 20)$
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07Q0106
Grade & Chapter Name	Grade 7 | Integers
Concept | Sub-concept	Numbers | Integers (Application of Integers)
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Writes 'Yes' with valid justification • Yes, both teams can score equal. This can happen if Team A falls once and team B falls twice. • Yes, both Teams can score equal. This can happen if Team A falls twice and Team B falls thrice.
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07Q0107
Grade & Chapter Name	Grade 7 | Integers
Concept | Sub-concept	Numbers | Integers (Application of Integers)
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	In Archery and Jumping Jack
Partial Credit (Partial Score)	Either Archery or Jumping Jack
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07Q0108
Grade & Chapter Name	Grade 7 | Integers
Concept | Sub-concept	Numbers | Integers (Application of Integers)
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. -24°C
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07Q0109
Grade & Chapter Name	Grade 7 | Integers
Concept | Sub-concept	Numbers | Integers (Application of Integers)
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	Sunday, Monday, Wednesday, and Saturday
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07Q0110
Grade & Chapter Name	Grade 7 | Integers
Concept | Sub-concept	Numbers | Integers (Properties of Addition and Subtraction of Integers)
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	9°C
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07Q0201
Grade & Chapter Name	Grade 7 | Fractions and Decimals
Concept | Sub-concept	Numbers | Multiplication and Division of Fraction
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	1095.50 or ₹ 1095.50
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07Q0202
Grade & Chapter Name	Grade 7 | Fractions and Decimals
Concept | Sub-concept	Numbers | Multiplication and Division of Fraction
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. ₹ 1529.50
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07Q0203
Grade & Chapter Name	Grade 7 | Fractions and Decimals
Concept | Sub-concept	Numbers | Multiplication and Division of Fraction
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	1 or 1 glass
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07Q0204
Grade & Chapter Name	Grade 7 | Fractions and Decimals
Concept | Sub-concept	Numbers | Multiplication and Division of Fraction
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	44 or 44 units
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07Q0205
Grade & Chapter Name	Grade 7 | Fractions and Decimals
Concept | Sub-concept	Numbers | Multiplication and Division of Fraction
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. 20
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07Q0206
Grade & Chapter Name	Grade 7 | Fractions and Decimals
Concept | Sub-concept	Numbers | Multiplication and Division of Fraction
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	Mentions 'Dress' with valid justification • She will get a dress because she completed 37 levels which is more than $\frac{3}{5}$ but less than $\frac{4}{5}$ of the game levels. • She will get a dress as she completed more than $\frac{3}{5}$ but less than $\frac{4}{5}$ of the game levels. • She will get a dress. 37 out of 50 is more than 30 out of 50 but less than 40 out of 50.
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07Q0207
Grade & Chapter Name	Grade 7 | Fractions and Decimals
Concept | Sub-concept	Numbers | Multiplication and Division of Fraction
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Gold or Gold team
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07Q0208
Grade & Chapter Name	Grade 7 | Fractions and Decimals
Concept | Sub-concept	Numbers | Multiplication and Division of Fraction
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	16.66 or 16.66 % 17 or 17 %
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07Q0209
Grade & Chapter Name	Grade 7 | Fractions and Decimals
Concept | Sub-concept	Numbers | Multiplication and Division of Fraction
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	8 or 8%
Partial Credit (Partial Score)	8.33 or 8.33%
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07Q0210
Grade & Chapter Name	Grade 7 | Fractions and Decimals
Concept | Sub-concept	Numbers | Multiplication and Division of Fraction
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	15 or 15 g
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07D0301
Grade & Chapter Name	Grade 7 | Data Handling
Concept | Sub-concept	Statistics | Measures of Central Tendency (Mean, Median, Mode)
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	Yes, with valid reasoning. • Yes, according to the table 9.98 million users are active users. 9.98 is nearly 50% of 20 million. • Yes, around 10 million people play games, which is 50% of the total population.
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07D0302
Grade & Chapter Name	Grade 7 | Data Handling
Concept | Sub-concept	Statistics | Measures of Central Tendency (Mean, Median, Mode)
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	25 25%
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07D0303
Grade & Chapter Name	Grade 7 | Data Handling
Concept | Sub-concept	Statistics | Measures of Central Tendency (Mean, Median, Mode)
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. KC
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07D0304
Grade & Chapter Name	Grade 7 | Data Handling
Concept | Sub-concept	Statistics | Measures of Central Tendency (Mean, Median, Mode)
Competency	Formulate
Item Type	Closed Constructed Response
Full Credit (Full Score)	SN and HC
Partial Credit (Partial Score)	Either SN or HC
No Credit (No Score)	Any other response or missing response
Item Number	Question 5
Question Code	SAS21M07D0305
Grade & Chapter Name	Grade 7 | Data Handling
Concept | Sub-concept	Statistics | Measures of Central Tendency (Mean, Median, Mode)
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. 8.557
No Credit (No Score)	Any other response or missing response
Item Number	Question 6
Question Code	SAS21M07D0306
Grade & Chapter Name	Grade 7 | Data Handling
Concept | Sub-concept	Statistics | Measures of Central Tendency (Mean, Median, Mode)
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. 50
No Credit (No Score)	Any other response or missing response
Item Number	Question 7
Question Code	SAS21M07D0307
Grade & Chapter Name	Grade 7 | Data Handling
Concept | Sub-concept	Statistics | Measures of Central Tendency (Mean, Median, Mode)
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	No, reasoning involves comparison of mean and median of Mary's score. • No, the mean and median of Mary's score are not equal. Mean score is 43.6, whereas median score is 46.
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07D0308
Grade & Chapter Name	Grade 7 | Data Handling
Concept | Sub-concept	Statistics | Measures of Central Tendency (Mean, Median, Mode)
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. Increases by 1.13
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07D0309
Grade & Chapter Name	Grade 7 | Data Handling
Concept | Sub-concept	Statistics | Measures of Central Tendency (Mean, Median, Mode)
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. $\dfrac{1}{2}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07D0310
Grade & Chapter Name	Grade 7 | Data Handling
Concept | Sub-concept	Statistics | Measures of Central Tendency (Mean, Median, Mode)
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. $\dfrac{1}{2}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07C0401
Grade & Chapter Name	Grade 7 | Simple Equations
Concept | Sub-concept	Algebra | Introduction to Equations
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. 10
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07C0402
Grade & Chapter Name	Grade 7 | Simple Equations
Concept | Sub-concept	Algebra | Introduction to Equations
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	1440 1440 points
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07C0403
Grade & Chapter Name	Grade 7 | Simple Equations
Concept | Sub-concept	Algebra | Introduction to Equations
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	Raghav, reasoning involves comparison of number of matches played by them. • Raghav, as he played 110 matches while Drishti played 56 matches.
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07C0404
Grade & Chapter Name	Grade 7 | Simple Equations
Concept | Sub-concept	Algebra | Introduction to Equations
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	No, justification involves the points deducted for a loss. • No, score depends on the number of wins and losses not on the total number of matches played. • No, if you lose more than you win, your score will be less.
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07C0405
Grade & Chapter Name	Grade 7 | Simple Equations
Concept | Sub-concept	Algebra | Introduction to Equations
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	44 or 44 hurdles
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07C0406
Grade & Chapter Name	Grade 7 | Simple Equations
Concept | Sub-concept	Algebra | Introduction to Equations
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	No, justification involves independence of method and solution or examples of solving an equation by different methods. • No, because the same solution can be obtained by multiple methods. • $6x + 8 = 38$ can be solved by transposing the numbers or by adding/subtracting same numbers from both sides of the equation.
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07C0407
Grade & Chapter Name	Grade 7 | Simple Equations
Concept | Sub-concept	Algebra | Equations (Solving an Equation)
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. $5 + 4x = 9$
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07C0408
Grade & Chapter Name	Grade 7 | Simple Equations
Concept | Sub-concept	Algebra | Equations (Solving an Equation)
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. $6x + 4(x - 5) = 80$
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07C0409
Grade & Chapter Name	Grade 7 | Simple Equations
Concept | Sub-concept	Algebra | Equations (Solving an Equation)
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. 10
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07C0410
Grade & Chapter Name	Grade 7 | Simple Equations
Concept | Sub-concept	Algebra | Equations (Solving an Equation)
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. $3x + 1 = 13$
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07S0501
Grade & Chapter Name	Grade 7 | Lines and Angles
Concept | Sub-concept	Geometry/Parallel Lines | Corresponding Angles
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. Corresponding angles
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07S0502
Grade & Chapter Name	Grade 7 | Lines and Angles
Concept | Sub-concept	Geometry/Parallel Lines | Angle Sum Property
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. 60°
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07S0503
Grade & Chapter Name	Grade 7 | Lines and Angles
Concept | Sub-concept	Geometry/Parallel Lines | Angle Sum Property
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. 90°
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07S0504
Grade & Chapter Name	Grade 7 | Lines and Angles
Concept | Sub-concept	Geometry | Parallel Lines and a Transversal
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Reasoning involves the condition: When two lines are perpendicular to a line, they are parallel to each other. • SP and QR are perpendicular to AD, so they are parallel to each other.
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07S0505
Grade & Chapter Name	Grade 7 | Lines and Angles
Concept | Sub-concept	Geometry | Parallel Lines and a Transversal
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Yes, reasoning involves the definition of transversal line. • Yes, DF is transversal to KL and MN because it cuts the parallel lines KL and MN. • Yes, DF is transversal to KL and MN because it intersects two lines at distinct points.
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07S0506
Grade & Chapter Name	Grade 7 | Lines and Angles
Concept | Sub-concept	Geometry | Parallel Lines and a Transversal
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. They intersect at D
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07S0507
Grade & Chapter Name	Grade 7 | Lines and Angles
Concept | Sub-concept	Geometry/Parallel Lines | Vertical Opposite Angles
Competency	Formulate
Item Type	Closed Constructed Response
Full Credit (Full Score)	$\angle 1, \angle 4$ $\angle 2, \angle 3$ $\angle 5, \angle 7$ $\angle 6, \angle 8$
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07S0508
Grade & Chapter Name	Grade 7 | Lines and Angles
Concept | Sub-concept	Geometry/Parallel Lines and a Transversal | Alternate Exterior Angles
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. ∠2 and ∠8
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07S0509
Grade & Chapter Name	Grade 7 | Lines and Angles
Concept | Sub-concept	Geometry | Parallel Lines and a Transversal
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	25°
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07S0510
Grade & Chapter Name	Grade 7 | Lines and Angles
Concept | Sub-concept	Geometry/Parallel Lines | Sum of angles
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. 115°
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07S0601
Grade & Chapter Name	Grade 7 | The Triangle and its Properties
Concept | Sub-concept	Geometry/Triangle | Sum of the Lengths of a Triangle
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. 3 cm
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07S0602
Grade & Chapter Name	Grade 7 | The Triangle and its Properties
Concept | Sub-concept	Geometry/Triangle | Sum of the Lengths of a Triangle
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. 6 cm
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07S0603
Grade & Chapter Name	Grade 7 | The Triangle and its Properties
Concept | Sub-concept	Geometry/Triangle | Sum of the Lengths of a Triangle
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Accept answers in which differentiation between median and altitude is evident. • Anshu marked the altitude of the side BC, while Radhika marked the median of the side BC.
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07S0604
Grade & Chapter Name	Grade 7 | The Triangle and its Properties
Concept | Sub-concept	Geometry/Triangle | Sum of the Lengths of a Triangle
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	The explanation involves the angle sum property of a triangle. • An exterior angle is the sum of its opposite interior angles. If the sum of two angles is 180°, the measure of the third angle will be 0°. Thus no triangle will be formed.
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07S0605
Grade & Chapter Name	Grade 7 | The Triangle and its Properties
Concept | Sub-concept	Geometry/Triangle | Sum of the Lengths of a Triangle
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	135° 135
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07S0606
Grade & Chapter Name	Grade 7 | The Triangle and its Properties
Concept | Sub-concept	Geometry/Triangle | Sum of the Lengths of a Triangle
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	60 60°
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07S0607
Grade & Chapter Name	Grade 7	The Triangle and its Properties
Concept	Sub-concept	Geometry/Triangle	Types of Triangle
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Right-angled triangle
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07S0608
Grade & Chapter Name	Grade 7	The Triangle and its Properties
Concept	Sub-concept	Geometry/Triangle	Sum of the Lengths of a Triangle
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Accept any of the two lengths, either 48 or 55 • 48 cm • 55 cm
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07S0609
Grade & Chapter Name	Grade 7	The Triangle and its Properties
Concept	Sub-concept	Geometry/Triangle	Sum of the Lengths of a Triangle
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	30 30°
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07S0610
Grade & Chapter Name	Grade 7	The Triangle and its Properties
Concept	Sub-concept	Geometry/Triangle	Sum of the Lengths of a Triangle
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. 50
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07S0701
Grade & Chapter Name	Grade 7 | Congruence of Triangles
Concept | Sub-concept	Triangles | Congruence among Line Segment
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	Yes, with valid reasoning. • Yes, line segment AB is congruent to line segment EG because one can be superimposed on the other. • Yes, the triangles are equilateral and with the same side length, hence they are equal.
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07S0702
Grade & Chapter Name	Grade 7 | Congruence of Triangles
Concept | Sub-concept	Triangles | Criteria for Congruence of Triangles
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. SAS
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07S0703
Grade & Chapter Name	Grade 7 | Congruence of Triangles
Concept | Sub-concept	Triangles | Criteria for Congruence of Triangles
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Yes, with valid reasoning. • Yes, Aditi is correct. Since two sides are equal, it is an isosceles triangle. One angle is equal to 60°, so the sum of the remaining equal angles is 120. Thus, all angles are 60° each.
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07S0704
Grade & Chapter Name	Grade 7 | Congruence of Triangles
Concept | Sub-concept	Triangles | Criteria for Congruence of Triangles
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	No, with valid reasoning. • No, Rohit's claim is not valid because ΔACB can be proved congruent to ΔFGE by SSS, SAS and ASA congruence criteria, but not by RHS congruence criteria.
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07S0705
Grade & Chapter Name	Grade 7 | Congruence of Triangles
Concept | Sub-concept	Triangles | Criteria for Congruence of Triangles
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	No, with valid reasoning. • No, two triangles are not said to be congruent if all three angles of one triangle are congruent to corresponding angles of another because they may have different side length. • No, two triangles are not said to be congruent if all three angles of one triangle are congruent to corresponding angles of another because they may not superimpose each other.
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07S0706
Grade & Chapter Name	Grade 7 | Congruence of Triangles
Concept | Sub-concept	Triangles | Criteria for Congruence of Triangles
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. ΔDFA ≅ ΔDEF
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07S0707
Grade & Chapter Name	Grade 7 | Congruence of Triangles
Concept | Sub-concept	Triangles | Criteria for Congruence of Triangles
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. ASA
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07S0708
Grade & Chapter Name	Grade 7 | Congruence of Triangles
Concept | Sub-concept	Triangles | Criteria for Congruence of Triangles
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Yes, with valid reasoning. • Yes, ΔPQR is congruent to ΔRSP under RHS congruence criterion because right angle, hypotenuse and side in ΔPQR is congruent to corresponding right angle, hypotenuse and side in ΔRSP.
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07S0709
Grade & Chapter Name	Grade 7 | Congruence of Triangles
Concept | Sub-concept	Triangles | Criteria for Congruence of Triangles
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. ∠PQR
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07S0710
Grade & Chapter Name	Grade 7 | Congruence of Triangles
Concept | Sub-concept	Triangles | Criteria for Congruence of Triangles
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. QR
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07N0801
Grade & Chapter Name	Grade 7 | Comparing Quantities
Concept | Sub-concept	Numbers | Equivalent Ratios
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	0.42/27 0.42:27 42:2700 14:900
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07N0802
Grade & Chapter Name	Grade 7 | Comparing Quantities
Concept | Sub-concept	Numbers | Equivalent Ratios
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Yes, with valid reasoning and involves comparison of consumption of petrol to diesel. Yes, it is correct to say that in the year 2019, the consumption of diesel was less than three times of the consumption of petrol in India because $28.3 \times 3 = 84.9$, which is more than 83.5. Yes, it is correct to say that in the year 2019, the consumption of diesel was less than three times of the consumption of petrol in India because $83.5/3 = 27.8$ which is less than 28.3.
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07N0803
Grade & Chapter Name	Grade 7 | Comparing Quantities
Concept | Sub-concept	Numbers | Percentage - Another Way of Comparing Quantities
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. Rs. 38.56
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07N0804
Grade & Chapter Name	Grade 7 | Comparing Quantities
Concept | Sub-concept	Numbers | Percentage - Another Way of Comparing Quantities
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. 70%
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07N0805
Grade & Chapter Name	Grade 7 | Comparing Quantities
Concept | Sub-concept	Numbers | Simple Interest
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	Rs. 49,500
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07N0806
Grade & Chapter Name	Grade 7 | Comparing Quantities
Concept | Sub-concept	Numbers | Percentage - Another Way of Comparing Quantities
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	40%
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07N0807
Grade & Chapter Name	Grade 7 | Comparing Quantities
Concept | Sub-concept	Numbers | Percentage - Another Way of Comparing Quantities
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	16%
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07N0808
Grade & Chapter Name	Grade 7 | Comparing Quantities
Concept | Sub-concept	Numbers | Percentage - Another Way of Comparing Quantities
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	75%
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07N0809
Grade & Chapter Name	Grade 7 | Comparing Quantities
Concept | Sub-concept	Numbers | Percentage - Another Way of Comparing Quantities
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. Rs. 550
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07N0810
Grade & Chapter Name	Grade 7 | Comparing Quantities
Concept | Sub-concept	Numbers | Percentage - Another Way of Comparing Quantities
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. 220%
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07N0901
Grade & Chapter Name	Grade 7 | Rational Numbers
Concept | Sub-concept	Number System | Operations of Rational Numbers
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	Rs. 10,500 10,500
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07N0902
Grade & Chapter Name	Grade 7 | Rational Numbers
Concept | Sub-concept	Number System | Operations of Rational Numbers
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. $\dfrac{7}{10}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07N0903
Grade & Chapter Name	Grade 7 | Rational Numbers
Concept | Sub-concept	Number System | Comparison of Rational Numbers
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Website B, reasoning involves comparison of discount. • Website B offers more discount than Website A. • Website B, because 25> 310 • Website B offers a discount of Rs. 6000, whereas Website B offers a discount of Rs. 4500.
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07N0904
Grade & Chapter Name	Grade 7 | Rational Numbers
Concept | Sub-concept	Number System | Rational Numbers on Number Line
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Graphic
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07N0905
Grade & Chapter Name	Grade 7 | Rational Numbers
Concept | Sub-concept	Number System | Operations of Rational Numbers
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	No, the answer includes supporting examples. • No, the product of $-\frac{2}{7}$ and its multiplicative inverse is 1, not −1. • $-\left(-\frac{7}{2}\right)=1$
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07N0906
Grade & Chapter Name	Grade 7 | Rational Numbers
Concept | Sub-concept	Number System | Operations of Rational Numbers
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Yes, the answer includes examples. • $\frac{5}{8}+\left(-\frac{5}{8}\right)=0$ • $\left(-\frac{3}{2}\right)+\frac{3}{2}=0$ • $9+(-9)=0$
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07N0907
Grade & Chapter Name	Grade 7 | Rational Numbers
Concept | Sub-concept	Number System | Rational Numbers Between Two Rational Numbers
Competency	Formulate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Accept any set of three rational numbers that lie between 3 and 4. • $\dfrac{13}{4}$ $\dfrac{7}{2}$ $\dfrac{15}{4}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07N0908
Grade & Chapter Name	Grade 7 | Rational Numbers
Concept | Sub-concept	Number System | Rational Numbers on Number Line
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. Addition
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07N0909
Grade & Chapter Name	Grade 7 | Rational Numbers
Concept | Sub-concept	Number System | Rational Numbers on Number Line
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	$\dfrac{1}{8}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07N0910
Grade & Chapter Name	Grade 7 | Rational Numbers
Concept | Sub-concept	Number System | Operations on Rational Numbers
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. $\dfrac{7}{5}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07S1001
Grade & Chapter Name	Grade 7 | Practical Geometry
Concept | Sub-concept	Geometry | Construction of Angles
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. Line l never meets with line *m*.
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07S1002
Grade & Chapter Name	Grade 7 | Practical Geometry
Concept | Sub-concept	Geometry | Construction of Angles
Competency	Formulate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Line *p*
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07S1003
Grade & Chapter Name	Grade 7 | Practical Geometry
Concept | Sub-concept	Geometry | Construction of Angles
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. *p*
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07S1004
Grade & Chapter Name	Grade 7 | Practical Geometry
Concept | Sub-concept	Geometry | Construction of Angles
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. ∠ABC and ∠BCD
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07S1005
Grade & Chapter Name	Grade 7 | Practical Geometry
Concept | Sub-concept	Geometry | Construction of Angles
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. ∠BCD = ∠ABC
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07S1006
Grade & Chapter Name	Grade 7 | Practical Geometry
Concept | Sub-concept	Geometry | Construction of Triangles
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. The three side lengths were given
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07S1007
Grade & Chapter Name	Grade 7 | Practical Geometry
Concept | Sub-concept	Geometry | Construction of Triangles
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	No, with valid reasoning which involves criterion involved in drawing the triangle. • No, Anshu is not correct because the criterion used to draw the triangle is SSS, not ASA.
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07S1008
Grade & Chapter Name	Grade 7 | Practical Geometry
Concept | Sub-concept	Geometry | Construction of Triangles
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Accept answers involving triangle inequality as a reason • The sum of the two sides is equal to the third side.
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07S1009
Grade & Chapter Name	Grade 7 | Practical Geometry
Concept | Sub-concept	Geometry | Construction of Triangles
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	No, justification involves, AAA criteria. • No, AAA criteria do not ensure a unique triangle. • All three angles equivalence does not ensure sides equivalence
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07S1010
Grade & Chapter Name	Grade 7 | Practical Geometry
Concept | Sub-concept	Geometry | Construction of Triangles
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Right angle - Hypotenuse - Side
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07S1101
Grade & Chapter Name	Grade 7	Area and Perimeter
Concept	Sub-concept	Mensuration	Perimeter of Rectangle
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. 382 m
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07S1102
Grade & Chapter Name	Grade 7	Area and Perimeter
Concept	Sub-concept	Mensuration	Area of Rectangle
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. 3519 m^2
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07S1103
Grade & Chapter Name	Grade 7	Area and Perimeter
Concept	Sub-concept	Mensuration	Area of Rectangle
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. 6.72
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07S1104
Grade & Chapter Name	Grade 7	Area and Perimeter
Concept	Sub-concept	Mensuration	Area of Triangle
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. 4247.625 m^2
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07S1105
Grade & Chapter Name	Grade 7 | Area and Perimeter
Concept | Sub-concept	Mensuration | Application of Area of rectangle
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. 88.125
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07S1106
Grade & Chapter Name	Grade 7 | Area and Perimeter
Concept | Sub-concept	Mensuration | Area of Square
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	6895.25 m^2
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07S1107
Grade & Chapter Name	Grade 7 | Area and Perimeter
Concept | Sub-concept	Mensuration | Area of Circle
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	6.16 m^2 6.154 m^2 1.96π m^2
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07S1108
Grade & Chapter Name	Grade 7 | Area and Perimeter
Concept | Sub-concept	Mensuration | Perimeter of Circle
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. 8.8 m
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07S1109
Grade & Chapter Name	Grade 7 | Area and Perimeter
Concept | Sub-concept	Mensuration | Area of Parellelogram
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	80 cm^2
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07S1110
Grade & Chapter Name	Grade 7 | Area and Perimeter
Concept | Sub-concept	Mensuration | Perimeter of Combined Shapes
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	64 cm 68 cm
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07C1201
Grade & Chapter Name	Grade 7	Algebraic Expressions
Concept	Sub-concept	Algebra	Terms of an Expression
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. $800x + 500y$
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07C1202
Grade & Chapter Name	Grade 7	Algebraic Expressions
Concept	Sub-concept	Algebra	Terms of an Expression
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	Uses two variables and the sum of 250,000. • Let p be the number of cars on weekends and q be the number of cars on weekdays. $\qquad 150\ p + 100\ q = 250{,}000$ • Let it be a 30-day month and x be the number of cars which used the parking lot on weekends and y be the number of the cars at the park for the rest of the month. $\qquad 1350x + 2100\ y = 250{,}000$
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07C1203
Grade & Chapter Name	Grade 7	Algebraic Expressions
Concept	Sub-concept	Algebra	Terms of an Expression
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. $800x^2 + 500x$
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07C1204
Grade & Chapter Name	Grade 7 | Algebraic Expressions
Concept | Sub-concept	Algebra | Using Algebraic Expressions – Formulas and Rules
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	B. 11P
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07C1205
Grade & Chapter Name	Grade 7 | Algebraic Expressions
Concept | Sub-concept	Algebra | Using Algebraic Expressions – Formulas and Rules
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	P^2
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07C1206
Grade & Chapter Name	Grade 7 | Algebraic Expressions
Concept | Sub-concept	Algebra | Coefficient in Algebraic Expressions
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. t
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07C1207
Grade & Chapter Name	Grade 7 | Algebraic Expressions
Concept | Sub-concept	Algebra | Factors of Algebraic Expressions
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	$56 \times t \times t \times t$
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07C1208
Grade & Chapter Name	Grade 7 | Algebraic Expressions
Concept | Sub-concept	Algebra | Types of Algebraic Expressions
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Polynomial
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07C1209
Grade & Chapter Name	Grade 7 | Algebraic Expressions
Concept | Sub-concept	Algebra | Like and Unlike Terms
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	No, with valid reasoning. • No, Riya is not correct, because there are no like terms in the given algebraic expression. • No, Riya is not correct, because there are only unlike terms in the given algebraic expression.
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07C1210
Grade & Chapter Name	Grade 7 | Algebraic Expressions
Concept | Sub-concept	Algebra | Adding and Subtracting of Algebraic Expressions
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	Option B. $-56t^3 + 2t^2 + t - 16s^2 + 7s - 106$
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07N1301
Grade & Chapter Name	Grade 7 | Exponents and Power
Concept | Sub-concept	Numbers | Exponential Forms of Numbers
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. 1 millimetre
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07N1302
Grade & Chapter Name	Grade 7 | Exponents and Power
Concept | Sub-concept	Numbers | Exponential Forms of Numbers
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	100000 10^5
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07N1303
Grade & Chapter Name	Grade 7 | Exponents and Power
Concept | Sub-concept	Numbers | Exponential Forms of Numbers
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. 1.17×10^{-2}
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07N1304
Grade & Chapter Name	Grade 7 | Exponents and Power
Concept | Sub-concept	Numbers | Exponential Forms of Numbers
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. 2.5×10^{-9}
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07N1305
Grade & Chapter Name	Grade 7 | Exponents and Power
Concept | Sub-concept	Numbers | Exponential Forms of Numbers
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. 8.64×10^{-3}
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07N1306
Grade & Chapter Name	Grade 7 | Exponents and Power
Concept | Sub-concept	Numbers | Exponential Forms of Numbers
Competency	Interpret & Evaluate
Item Type	Open Constructed Response
Full Credit (Full Score)	The example must contain an even exponent of a negative number $(-2)^4 = 16; -2 < 16$
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07N1307
Grade & Chapter Name	Grade 7 | Exponents and Power
Concept | Sub-concept	Numbers | Exponential Forms of Numbers
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	9^5 $9 \times 9 \times 9 \times 9 \times 9$ 59049
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07N1308
Grade & Chapter Name	Grade 7 | Exponents and Power
Concept | Sub-concept	Numbers | Exponential Forms of Numbers
Competency	Interpret & Evaluate
Item Type	Open Constructed Response
Full Credit (Full Score)	Gives example for both cases. Let say x = -2 and y = -3. Case 1: $(-2)^2 × (-3)^2 = 6^2 = 36$ Case 2: $(-2)^{-2} × (-3)^{-2} = 6^{-2} = \frac{1}{36}$ And $\frac{1}{36} < 36$
Partial Credit (Partial Score)	Gives example for one case (either case 1 or case 2) Either Case 1: $(-2)^2 × (-3)^2 = 6^2 = 36$ Or Case 2: $(-2)^{-2} × (-3)^{-2} = 6^{-2} = \frac{1}{36}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07N1309
Grade & Chapter Name	Grade 7 | Exponents and Power
Concept | Sub-concept	Numbers | Exponential Forms of Numbers
Competency	Formulate
Item Type	Closed Constructed Response
Full Credit (Full Score)	9,500,000,000,000,000 $9.5 × 10^{15}$ $95 × 10^{14}$
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07N1310
Grade & Chapter Name	Grade 7 | Exponents and Power
Concept | Sub-concept	Numbers | Exponential Forms of Numbers
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	Option D. $4.75 × 10^{13}$
No Credit (No Score)	Any other response or missing response

| Item Number	Question 1
Question Code	SAS21M07S1401
Grade & Chapter Name	Grade 7 | Symmetry
Concept | Sub-concept	Geometry | Line Symmetry
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	No with valid justification • No, there is no fixed line which divides the figure into two identical parts.
No Credit (No Score)	Any other response or missing response
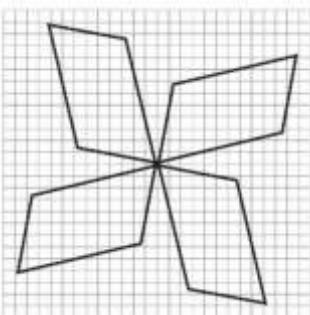
Item Number	Question 2
Question Code	SAS21M07S1402
Grade & Chapter Name	Grade 7 | Symmetry
Concept | Sub-concept	Geometry | Mirror Image
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Shows understanding of change in orientation in a mirror reflection Mentions change in lateral position when mirror reflections are used. • In mirror reflection, left-right orientation changes
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07S1403
Grade & Chapter Name	Grade 7 | Symmetry
Concept | Sub-concept	Geometry | Mirror Image
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. R and R'
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07S1404
Grade & Chapter Name	Grade 7 | Symmetry
Concept | Sub-concept	Geometry | Types of Symmetry
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Reflection Symmetry
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07S1405
Grade & Chapter Name	Grade 7 | Symmetry
Concept | Sub-concept	Geometry | Reflection and Symmetry
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	A valid justification is provided • The distance between a point on the object and a point on its image is the same from the mirror surface • Mirror produce point symmetry across its plane
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07S1406
Grade & Chapter Name	Grade 7 | Symmetry
Concept | Sub-concept	Geometry | Reflection and Symmetry
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	A. 0
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07S1407
Grade & Chapter Name	Grade 7 | Symmetry
Concept | Sub-concept	Geometry | Rotation Symmetry
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Draw parallelograms such that figure has four rotation symmetry.
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07S1408
Grade & Chapter Name	Grade 7 | Symmetry
Concept | Sub-concept	Geometry | Types of Symmetry
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. A parallelogram has a point of symmetry and rotational symmetry.
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07S1409
Grade & Chapter Name	Grade 7 | Symmetry
Concept | Sub-concept	Geometry | Rotational Symmetry
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Shows understanding of rotational symmetry • Agree, every object looks similar after 360° rotation
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07S1410
Grade & Chapter Name	Grade 7	Symmetry
Concept	Sub-concept	Geometry	Rotational Symmetry
Competency	Employ
Item Type	Closed Constructed Response
Full Credit (Full Score)	6
No Credit (No Score)	Any other response or missing response

Item Number	Question 1
Question Code	SAS21M07S1501
Grade & Chapter Name	Grade 7	Visualising Solid Shapes
Concept	Sub-concept	Geometry	Faces, Edges And Vertices
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. 30
No Credit (No Score)	Any other response or missing response

Item Number	Question 2
Question Code	SAS21M07S1502
Grade & Chapter Name	Grade 7	Visualising Solid Shapes
Concept	Sub-concept	Geometry	Faces, Edges And Vertices
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Yes, with valid explanation. • Yes, because the faces of the shape in both cases are 12.
No Credit (No Score)	Any other response or missing response

Item Number	Question 3
Question Code	SAS21M07S1503
Grade & Chapter Name	Grade 7	Visualising Solid Shapes
Concept	Sub-concept	Geometry	Faces, Edges And Vertices
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	Yes, with valid explanation. • Yes, because the faces of the shape in both cases are 12.
No Credit (No Score)	Any other response or missing response

Item Number	Question 4
Question Code	SAS21M07S1504
Grade & Chapter Name	Grade 7	Visualising Solid Shapes
Concept	Sub-concept	Geometry	Faces, Edges And Vertices
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. 4
No Credit (No Score)	Any other response or missing response

Item Number	Question 5
Question Code	SAS21M07S1505
Grade & Chapter Name	Grade 7 | Visualising Solid Shapes
Concept | Sub-concept	Geometry | Faces, Edges And Vertices
Competency	Formulate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Cuboid, 12 edges
No Credit (No Score)	Any other response or missing response

Item Number	Question 6
Question Code	SAS21M07S1506
Grade & Chapter Name	Grade 7 | Visualising Solid Shapes
Concept | Sub-concept	Geometry | Drawing Solids on a Flat Surface
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	No, with valid explanation • No face A is not identical to face B because face A is a square and face B is a rectangle. • No face A is not identical to face B because area of both faces are not equal.
No Credit (No Score)	Any other response or missing response

Item Number	Question 7
Question Code	SAS21M07S1507
Grade & Chapter Name	Grade 7 | Visualising Solid Shapes
Concept | Sub-concept	Geometry | Drawing Solids on a Flat Surface
Competency	Formulate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Image
No Credit (No Score)	Any other response or missing response

Item Number	Question 8
Question Code	SAS21M07S1508
Grade & Chapter Name	Grade 7 | Visualising Solid Shapes
Concept | Sub-concept	Geometry | Visualising Solid Objects
Competency	Employ
Item Type	Multiple Choice Question
Full Credit (Full Score)	C. 12
No Credit (No Score)	Any other response or missing response

Item Number	Question 9
Question Code	SAS21M07S1509
Grade & Chapter Name	Grade 7 | Visualising Solid Shapes
Concept | Sub-concept	Geometry | Visualising Solid Objects
Competency	Interpret & Evaluate
Item Type	Closed Constructed Response
Full Credit (Full Score)	Yes, with valid explanation • Yes, it is correct as top, front and side view have 6 cubes.
No Credit (No Score)	Any other response or missing response

Item Number	Question 10
Question Code	SAS21M07S1510
Grade & Chapter Name	Grade 7 | Visualising Solid Objects
Concept | Sub-concept	Geometry | Drawing Solids on a Flat Surface
Competency	Interpret & Evaluate
Item Type	Multiple Choice Question
Full Credit (Full Score)	D. Image
No Credit (No Score)	Any other response or missing response