Grade 06
Unit 04

Maths

Course Outline

- Understanding elementary shapes
- Integers

MAT
(Monthly Achievement Tests)

Guide Lines

1. Each set consists of:

50 | Warm-up/Foundation Questions

30 | Regular Questions

20 | Thinking Ability Questions

2. The time allocation and instructions regarding the questions are printed clearly in the beginning of each question types. The answers should be written or tick marked as per the instructions given. It is suggested to use pencil initially, so as to enable you to reuse the practice papers.

3. **According to the new pattern of CBSE these practice papers will be very useful especially for syllabus related Quiz, Debates, Visuals related checking and Orals etc.,**

4. After marking the answers, the scores of students can be checked and for marks obtained guidelines are given along with the question solving instructions. Follow those instructions and if, you are fully satisfied with your performance then check for your expected grades as per the CBSE guidelines as given on the back of each set.

5. Remember that this is only a guideline not the finally worked out result. You can further improve your performance by increase your practice.

6. For your convenience please follow following essential examiner's advices:

   a. Answer all the questions
   b. Read all the Options carefully
   c. Understand and use correct scientific language in your responses.

Short Code: 447307

Test ID: NMM06U040

We from ⟨SOUVENIR INFOTECH⟩ wish skillful learning for your bright future.

Before going for the test, look at least :

1. First of all go through the syllabus of the test according to the **Course Outline** provided at the front page of each MAT.

2. After going through the syllabus once or twice or even more time as per your satisfaction, first of all do the Warm-up questions. If you score A+ grade in those 50 questions go to the next level otherwise go through the chapter again.

3. The box for **Specific Information** is very useful as it adds to your concept building. Try to fill specific information in the proper way so that you will get the maximum benefit of it.

4. **Let's Chat** portion will help you to prepare for oral assessment. Through this you can increase your capacity to interact on a particular topic related to your syllabus.

5. The **Extra Diet** portion is also there to enhance you knowledge through visulization of concept. This portion provides you added knowledge on various related concepts.

6. The information related to time factor is there to enhance your time management skills.

7. From the examiners point of view it is always advised to use Pencil for initial efforts. The use of pen is fruitful only when the final effort comes.

Examiner's Tips:

☞ Read the question carefully. Make sure you understand exactly what is required.

☞ If you find that you are unable to do a part of a question, do not give up. The next part may be easier and may provide a clue to what you might have done in the part you found difficult.

☞ Note the number of marks per question as guide to the depth of response needed.

☞ Underline or note the key words that tell you what is required.

☞ Underline or note data as you read the question.

☞ Structure your answer carefully.

☞ Show all steps in calculations. Include equations you use and show the substitution of data. remember to work according to units given.

☞ Make sure that your answers contain suitable significant figures (wherever necessary) and must include units in numericals.

☞ Draw diagrams and graphs carefully.

☞ Read data from graphs carefully; note scales and prefixes on axes.

☞ Keep your eye on the clock but don't panic.

☞ If you have time at the end, use it. Check that your descriptions and explanations make sense. Consider whether there is anything you could add to an explanation or description. Repeat calculations to ensure that you have not made a mistake.

Opening Window

To enlighten your fundamental/basic topic knowledge.

A+. If you score 45 or above marks, move to the next section confidently.

A. If you score between 40 and 45 marks, it is satisfactory. Bit more knowledge will bring excellent result.

B. If you score below 40, kindly go through the topic more seriously.

Section A (50 marks)   **Time given – 50 minutes + 5 minutes for revision**

Questions 1 to 50 carry 1 mark each.

Given one of them is the correct answer make your choice and write its name (a, b, c or d) in the answer box provided.

1. A cuboid has _____ faces

    (a) 4   (b) 3

    (c) 6   (d) 8

    T – 1 min
    S – Understanding elementary shapes

    Ans.

2. A octagon has _____ sides.

    (a) 5   (b) 6

    (c) 7   (d) 8

    T – 1 min
    S – Understanding elementary shapes

    Ans.

3. A hexagon has _____ sides.

    (a) 5   (b) 6

    (c) 7   (d) 8

    T – 1 min
    S – Understanding elementary shapes

    Ans.

4. A sweet candy shape is

    (a) circle   (b) sphere

    (c) cylinder   (d) cube

    T – 1 min
    S – Understanding elementary shapes

    Ans.

5. The measure of 90° is called

    (a) Right angle   (b) obtuse angle

    (c) Acute angle   (d) none

    T – 1 min
    S – Understanding elementary shapes

    Ans.

6. A quadrilateral has _____ sides

(a) 4   (b) 5

(c) 3   (d) 6

7. The solid below has _____ triangular faces.

(a) 10   (b) 12   (c) 3   (d) 8

8. In the diagram below, PQ||SR, ∠PQS = ∠SQR and ∠ SRQ = ∠PQS. Find ∠ SQT.

(a) 12°   (b) 36°   (c) 60°   (d) 120°
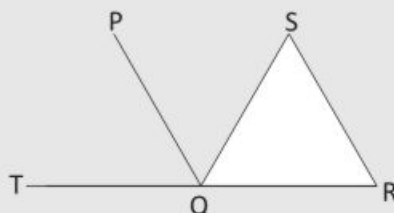
9. Find Đ z in the diagram below.

(a) 42°   (b) 65°   (c) 92°   (d) 138°
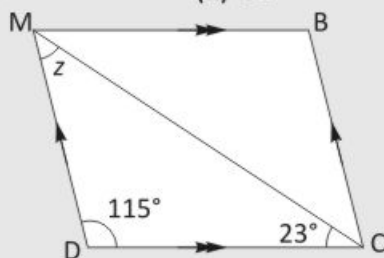
10. Triangle XYZ is an isosceles triangle. Find ∠ XYZ.

(a) 20°

(b) 65°

(c) 115°

(d) 160°
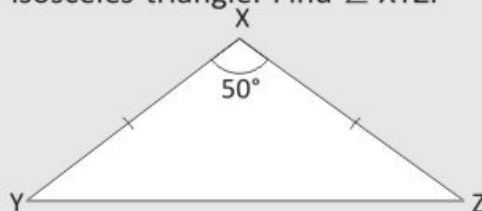
11. The solid below has _____ triangular faces.
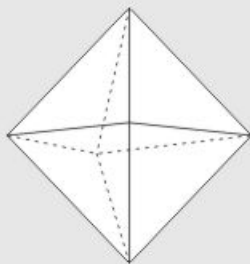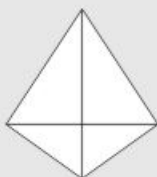   (a) 5   (b) 6   (c) 7

| T | – 1 min |
| S | – Understanding elementary shapes |

Ans.

12. The solid below has _____ triangular faces.
    (a) 2   (b) 3   (c) 4   (d) 5

| T | – 1 min |
| S | – Understanding elementary shapes |

Ans.

13. $6 + (-4) =$ _____
    (a) 10   (b) 2
    (c) 3   (d) 0

| T | – 1 min |
| S | – Integers |

Ans.

14. $(-2) + (-3) =$ _____
    (a) 1   (b) 2
    (c) –5   (d) –1

| T | – 1 min |
| S | – Integers |

Ans.

15. Sum of $(+6) - (-3) =$ _____
    (a) 3   (b) 9
    (c) –9   (d) 6

| T | – 1 min |
| S | – Integers |

Ans.

16. $(-8) +$ _____ $= 0$
    (a) 0   (b) –8
    (c) 10   (d) none

| T | – 1 min |
| S | – Integers |

Ans.

17. Subtract $(+5)$ from (-5)
    (a) 3   (b) 9
    (c) –10   (d) none

| T | – 1 min |
| S | – Integers |

Ans.

18. $(+5) + (-3) + (-2)$ is

    (a) 0   (b) 8

    (c) 10   (d) none

> T – 1 min
> S – Integers
> Ans.

19. $(-3) - (-3)$ is

    (a) 6   (b) –6

    (c) 0   (d) none

> T – 1 min
> S – Integers
> Ans.

20. $3 - (-6)$ is

    (a) 3   (b) –3

    (c) 9   (d) –9

> T – 1 min
> S – Integers
> Ans.

21-30, Whether the following statements are True or False.

21. A triangle in which two of its side are equal, is called equilateral triangle.

> T – 1 min
> S – Integers
> Ans.

22. The sum of the three angles is 180°.

> T – 1 min
> S – Integers
> Ans.

23. In a right angled triangle, the value of one angle is 90°.

> T – 1 min
> S – Integers
> Ans.

24. The radius of circle is equal to the diameter of a circle.

> T – 1 min
> S – Integers
> Ans.

25. A triangle whose one angle is greater than 90° is called obtuse triangle.

> T – 1 min
> S – Integers
> Ans.

26. A pair of angles formed by two interesting lines having no common arm are called pair of adjacent angles.

> T – 1 min
> S – Integers
> Ans.

27. One more than a given integer is called its predecessor.	T – 1 min S – Understanding elementary shapes	
	Ans.	
28. One less than a given integer is called its predecessor.	T – 1 min S – Understanding elementary shapes	
	Ans.	
29. $-1, -2, -3$ and o is called negative integers.	T – 1 min S – Understanding elementary shapes	
	Ans.	
30. $-1, -2, -3$ and 0, 1, 2, 3 are called integers.	T – 1 min S – Understanding elementary shapes	
	Ans.	

lering > or <

31. 0 ☐ 5	T – 5 min S – Integers	
	Ans.	
32. -5 ☐ 0		
	Ans.	
33. -2 ☐ 2		
	Ans.	
34. 3.9 ☐ -6.9		
	Ans.	
35. 1.7 ☐ -2.8		
	Ans.	

A square pyramid has a square of its base

36. Faces = _____

Ans.

37. Edges = _____

Ans.

38. Corners = _____

Ans.

39. The shape of your geometry box is _____.

Ans.

40. The shape of your pencil is _____.

Ans.

Fill in the blanks with the correct answer to make it a true statement.

41. A triangle has _____ vertices.

T – 1 min
S – Understanding elementary shapes

Ans.

42. A line segment has _____ end points and a line has _____ end points.

T – 1 min
S – Understanding elementary shapes

Ans.

43. The standard unit of measuring an angle is _____.

T – 1 min
S – Understanding elementary shapes

Ans.

44. Number of faces of cuboid is _____ .

T – 1 min
S – Understanding elementary shapes

Ans.

45. (a) A cube is cubic block will all edges of _____ length.
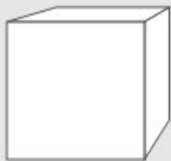
(b) Complete the formula:

Volume of cube = (   ) × (   ) × (   )

Ans.

46. (a) A _____ is a rectangular block.

(b) Complete the formula:

Volume of cuboid = (   ) × (   ) × (   )

Ans.

47. _____ is less than every positive integer.

Ans.

48. _____ is large than every negative integer.

Ans.

49. $3 + 4 + (-7) - (-2) =$

T – 1 min
S – Integers

Ans.

50. $(-2) + 6 + (-4) - (-8) =$

T – 1 min
S – Integers

Ans.

To enlighten your regular knowledge of topic. If you score more than 55 marks here, you have achieved this level brilliantly. Move to the next level of test papers.

Section B (60 marks)   Time given – 45 minutes + 5 minutes for revision
Questions 51 to 80 carry 2 marks each.
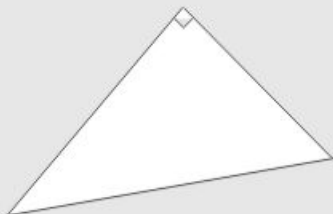*For Questions 51 to 54, write the name of each triangle.*

51.
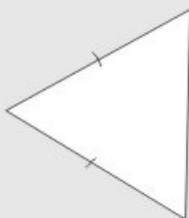
T	– 1 min
S	– Understanding elementary shapes

Ans. _____

52.

T	– 1 min
S	– Understanding elementary shapes

Ans. _____

53.
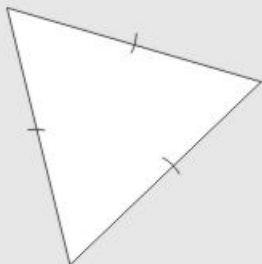
T	– 1 min
S	– Understanding elementary shapes

Ans. _____

54. The sum of angles in a triangle = _____°

Ans. _____

For Questions 55 to 58, find the unknown angles represented by the letters.

55.
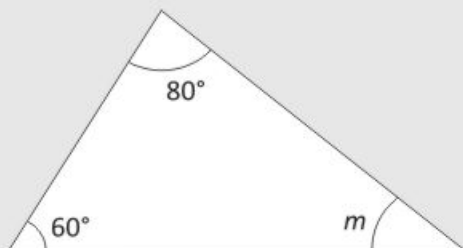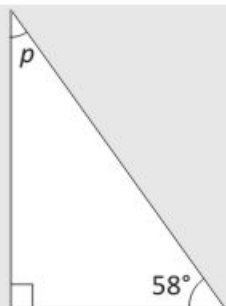
Ans. _____

56.

Ans. _____

57.

Ans. _____

58.
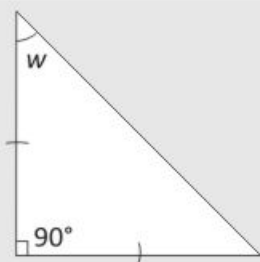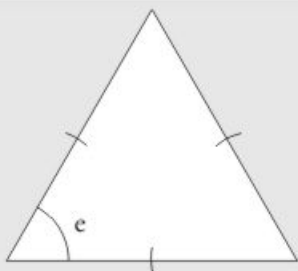
Ans.

For Questions 59 to 61, refer to the diagram below.
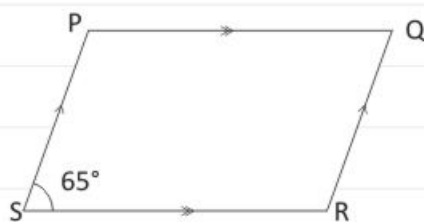
59. What is name of Figure PQRS?

Ans.

60. Find $\angle$PQR.

Ans.

61. Find $\angle$SRQ.

Ans.

62-64, In figure, some triangles have been given. State for each triangle, whether it is scalene, isosceles, or equilateral :

62.

T	– 3 min
S	– Angles in parallelogram

Ans. [ ]

63.
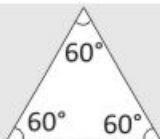
Ans. [ ]

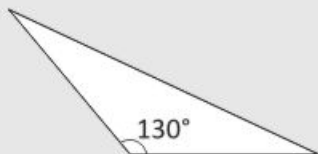**64.**

Ans. [ ]

65-66, Look at the figure given below. State for each triangle whether it is acute, right or, obtuse.

65.

T	– 1 min
S	– Understanding elementary shapes

Ans. [ ]

66.
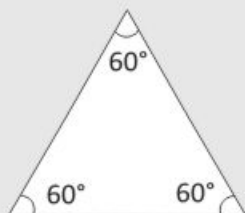
T	– 2 min
S	– Understanding elementary shapes

Ans. [ ]

67. One of the angles of a triangle is 160°, and the other two angles are equal. What is the measure of each of these angles?

Ans. [   ]

68. How many faces does the solid shown below have?
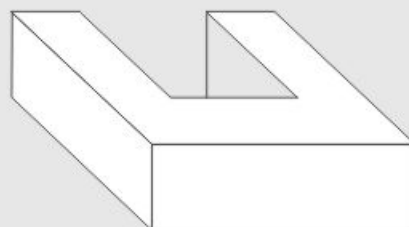
Ans. [   ]

69-73, Evaluate the following

69. $-50 + (-40) - (-38)$

Ans. [   ]

70. $-19 - (-48) - (-27) + 56$

Ans.

71. $16 - (12) + (-12) + (-19)$

Ans.

72. $66 - (-18) - (14) + 12$

Ans.

73. $14 - (-16) - 18 + (-16)$

Ans.

74. Find the value of $(-3)-(-2)$ using number line.

| T | – 2 min |
| S | – Integers |

Ans.

75. Find the value of $(-8)-(-3)$ using number line.

| T | – 2 min |
| S | – Integers |

Ans.

76. Find the value of $2+(+3)$ using number line.

| T | – 2 min |
| S | – Integers |

Ans.

77. Find the value of $2+(+3)$ using number line

| T | – 2 min |
| S | – Integers |

Ans.

78. Find the value of $(-6) + (+5)$ using number line.

Ans.

79. Find the value of $(-2) - (-4)$ using number line.

Ans.

80. Find the value of $(-7) + (-5)$ using number line.

Ans.

To enlighten your regular knowledge of topic. If you score more than 50 marks here, you have achieved this level brilliantly. Move to the next level of test papers.

Section C (60 marks)   **Time given – 45 minutes + 5 minutes for revision**

Using number line write the integer which is

81. 6 more than −2

T	– 3 min
S	– Integers

Ans.

82. 3 less than 1

T	– 3 min
S	– Integers

Ans.

83. Subtract (−4) from (−10) using number line

T	– 3 min
S	– Integers

Ans.

Match the column

T	– 10 min
S	– Understanding elementary shapes

Column I		Column II
84. Sphere	(i)	
85. Cylinder	(ii)	

86.	Cuboid	(iii)	
87.	Cube	(iv)	
88.	Pyramid	(v)	
89.	Cone	(vi)	
90.	Pentagon	(vii)	
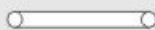
91. Draw a regular octagon, Draw a rectangle by joining by exactly four of the vertices of the octagon.

T – 3 min
S – Integers

Ans.

Complete the following sentence

92. Each side of the cube is a flat surface called a _____.

T – 3 min
S – Integers

Ans.

93. Two foces meet at a line segment called an _____.

T – 3 min
S – Integers

94. Three edges meet at a point called a _____.

Evaluate the following

95. $8 + (-9) - (-4) + (-6)$

96. $6 + (18) - 19 - (-16)$

Ans.

97. $16 + (-18) - 21 - (-32)$

T – 3 min
S – Integers

Ans.

98. $-91 + (-16) - (-32)$

T – 2 min
S – Integers

Ans.

99. $91 - (-25) + (-65) - (-32)$

T – 2 min
S – Integers

Ans.

100. $88 + 6 - (-4) - 2$

T – 2 min
S – Integers

Ans.

Tools at a glance

Opening Window with instructions for your potential analysis and guideline to improve your performance.

Opening Window

Let's Chat, the feature with suggestive topics for discussion so as to improve your capacity to debate on various topics.

T — ....
S — ....

Box with time break-up of questions **(T)** and its concept **(S**, i.e., subject)

Let's Chat

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****

Brain Teasers

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Brain Teasers i.e., Questions with difference to make the concepts of students crystal clear. These are the questions with higher difficulty levels to check the grip of the students over the concepts.

Extra Diet, the web link, the notation: www._____ to provide additional information regarding the concept for more clarity of thoughts.

Extra Diet ....

CBSE GRADING PATTERN

As the new pattern includes **CCE** (Continuous and Comprehensive Evaluation) which will be run in two terms i.e., from April to September and October to March. Thus the school will conduct four **Formative** and two **Summative** Assessments.

However, the most generalised version of grades is given below:

MARKS PERCENTAGE	GRADE	GRADE POINT	CATEGORY
91 to 100	A1	10	Exceptional
81 to 90	A2	9	Excellent
71 to 80	B1	8	Very Good
61 to 70	B2	7	Good
51 to 60	C1	6	Ordinary
41 to 50	C2	5	Average
33 to 40	D	4	Below Average
21 to 32	E1	3	Improvement Needed
Below 20	E2	Below 2	Unsatisfactory