

Grade 06 Unit 03

Maths

Course Outline

Formative 1

- Knowing our numbers
- Whole numbers
- Playing with numbers
- Basic geometrical ideas

MAT

(Monthly Achievement Tests)

Short Code: 447307

Test ID: NMM06U030



Guide Lines

1. Each set consists of:

50 | Warm-up/Foundation Questions

30 | Regular Questions

20 | Thinking Ability Questions

- 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.
- 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.,**
- 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.
- Remember that this is only a guideline not the finally worked out result. You can further improve your performance by increase your practice.
- For your convenience please follow following essential examiner's advices:
 - Answer all the questions
 - Read all the Options carefully
 - Understand and use correct scientific language in your responses.

We from  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 your knowledge through visualization 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.

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. In _____, digit 3 is in both the thousands place and tens place.

(a) 3003

(b) 3030

(c) 3300

(d) 30303

T – 1 min

S – Knowing our numbers

Ans. _____

2. The height of a tall adult is about _____.

(a) 18 m

(b) 18 cm

(c) 180 m

(d) 180 cm

T – 1 min

S – Knowing our numbers

Ans. _____

3. Joe's weight is about 35 kg.
His actual weight could be _____.

(a) 34.4 kg

(b) 35.4 kg

(c) 35.5 kg

(d) 35.7 kg

T – 1 min

S – Knowing our numbers

Ans. _____

4. A Rs 5 note is exchanged for 25 coins, all of which have the same value.
The value of each coin is _____.

(a) 5 paisa

(b) 10 paisa

(c) 20 paisa

(d) 0 paisa

T – 1 min

S – Knowing our numbers

Ans. _____

5. $3\frac{3}{5}$ h = _____ min

(a) 192

(b) 200

(c) 210

(d) 216

T – 1 min

S – Whole numbers

Ans. _____

6. The number of spectators, when rounded off to the nearest thousand, was 22,000. The actual number of spectators could be _____.

(a) 20,459

(b) 21,419

(c) 22,496

(d) 22,791

T – 1 min

S – Whole numbers

Ans. _____

7. _____ 3-digit number can be formed with the digits 1, 4 and 7.

(a) 6

(b) 8

(c) 9

(d) 12

T – 1 min

S – Whole numbers

Ans. _____

8. _____ are common factors of 16, 32 and 56.

(a) 1, 4 and 7

(b) 1, 2, 6 and 8

(c) 1, 2, 4 and 8

(d) 1, 3, 4 and 8

T – 1 min

S – Whole numbers

Ans. _____

9. The number of spectators, when rounded off to the nearest thousand, was 23,000. The actual number of spectators could be ____.

(a) 22,459

(b) 21,959

(c) 22,929

(d) 23,524

T – 1 min

S – Whole numbers

Ans. _____

10. _____ 3 digit numbers can be formed with the digits 1, 2 and 3.

(a) 6

(b) 8

(c) 9

(d) 10

T – 1 min

S – Whole numbers

Ans. _____

11. Successor of 5318

(a) 5317

(b) 5316

(c) 5319

(d) none of these

T – 1 min

S – Knowing our numbers

Ans. _____

12. _____ is divisible by 4

(a) 3886

(b) 68932

(c) 8931

(d) 5699

T – 1 min

S – Knowing our numbers

Ans. _____

13. _____ is divisible by 3

(a) 338

(b) 651

(c) 312

(d) none of these

T – 1 min

S – Knowing our numbers

Ans. _____

14.	HCF of 36 and 150 is (a) 12 (c) 6	(b) 36 (d) none of these	T – 1 min S – Knowing our numbers
			Ans.
15.	HCF of 12, 18 and 46 is (a) 4 (c) 2	(b) 6 (d) 8	T – 1 min S – Knowing our numbers
			Ans.
16.	LCM of 198 and 78 is (a) 2574 (c) 2531	(b) 68 (d) none of these	T – 1 min S – Knowing our numbers
			Ans.
17.	HCF of 48 and 84 is (a) 24 (c) 8	(b) 12 (d) 32	T – 1 min S – Knowing our numbers
			Ans.
18.	HCF of 54, 144 and 210. (a) 12 (c) 6	(b) 24 (d) 18	T – 1 min S – Knowing our numbers
			Ans.
19.	Triangle has _____ verticles. (a) 2 (c) 3	(b) 4 (d) 5	T – 1 min S – Knowing our numbers
			Ans.
20.	A polygon has 4 sides and 4 angles, called (a) triangle (c) circle	(b) quadrilateral (d) line	T – 1 min S – Knowing our numbers
			Ans.

True or False

21.	The smallest whole number is 0.	T – 1 min S – Whole numbers
		Ans.

22. Every natural number is a whole number and vice versa.

T – 1 min
S – Whole numbers

Ans.

23. A number having exactly two factors is called prime number.

T – 1 min
S – Whole numbers

Ans.

24. 1 Centimeter = 100 Milimetres.

T – 1 min
S – Whole numbers

Ans.

25. In _____ digit 5 is in both the ten thousands place and hundreds place.

(a) 5005

(b) 50050

(c) 55005

(d) 50505

T – 1 min
S – Whole numbers

Ans.

26. 10 mm = 1 cm

T – 1 min
S – Whole numbers

Ans.

27. 100 hectometre = 1 kilometre

T – 1 min
S – Whole numbers

Ans.

28. The meeting point of a pair of sides is called a vertex.

T – 1 min
S – Basic geometrical ideas

Ans.

29. A diameter = 3 times of radius.

T – 1 min
S – Basic geometrical ideas

Ans.

30. LCM of 12 and 18 is 72.

T – 1 min
S – Playing with numbers

Ans.

31. LCM of 4 and 5 is 20.

T – 1 min
S – Playing with numbers

Ans.

32. Every prime number except 2 is odd.

T – 1 min
S – Playing with numbers

Ans.

33. All even numbers are composite numbers.

T – 1 min
S – Playing with numbers

Ans.

34. Prime number do not have any factors.

T – 1 min
S – Playing with numbers

Ans.

35. 1 is neither a prime nor a composite number.

T – 1 min
S – Playing with numbers

Ans.

Match the following columns

T – 5 min
S – Playing with numbers

Column A

Column B

36. HCF of 5 and 9

(i) 121

37. LCF of 5 and 9

(ii) 848

38. Number divisible by 11

(iii) 1

39. Number divisible by 4

(iv) 360

40. LCM of 24 and 90

(v) 45

Fill in the blanks

41. _____ is neither prime nor composite.

T – 1 min
S – Playing with numbers

Ans. _____

42. The smallest even prime number is _____.

T – 1 min
S – Playing with numbers

Ans. _____

43. 1 cm = _____ mm.

T – 1 min
S – Playing with numbers

Ans. _____

44. In _____ digit 5 is in both the ten thousands place and hundreds place.

(a) 5005

(b) 50050

(c) 55005

(d) 50505

T – 1 min
S – Playing with numbers

Ans. _____

45. 168 cm = _____ m.

(a) 1.68 m

(b) 1680 m

(c) 16.8 m

(d) 168 m

T – 1 min
S – Playing with numbers

Ans. _____

46. 1 centimetre = _____ millimetres.

T – 1 min
S – Playing with numbers

Ans. _____

47. Every positive rational number is _____ than zero.

T – 1 min
S – Playing with numbers

Ans. _____

48. 145, rounded off two nearest hundred, The number is _____.

T – 1 min
S – Playing with numbers

Ans. _____

49. The largest 5 digit number is _____ .

T – 1 min
S – Whole numbers

Ans.

50. The common factor of 4 and 8 is _____ .

T – 1 min
S – Whole numbers

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.

51. A number, N , is smaller than 50. N is a multiple of 6 as well as a multiple of 9. What is the smallest possible number of N ?

T – 1 min
S – Whole numbers

Ans.

52. The number of pupils in a school doubled every year. The school had its full intake of 1600 pupils in the year 2004. In which year did the school start with an intake of only 25 pupils?

T – 1 min
S – Whole numbers

Ans.

53. Write the even numbers between 13 and 24.

T – 1 min
S – Whole numbers

Ans.

54. Mr Lim packed 45 pies equally into some boxes.

What was the largest possible number of pies in each box if he did not pack all the 45 pies into a single box?

T – 1 min
S – Whole numbers

Ans.

55. Tim used a jug to fill a 9 L container completely with water.

The capacity of the jug was 0.75 L. How many jugs of water did he use?

T – 1 min
S – Whole numbers

Ans.

56. $9 - 2\frac{4}{9} = \square$

T – 1 min
S – Whole numbers

Ans.

57. $34 \times 17 = 34 \times (20 - \square)$

What is the missing number in the box?

T – 1 min
S – Whole numbers

Ans.

58. What is the difference between the largest number of five digit and the smallest number of six digit?

T – 1 min
S – Whole numbers

Ans.

59. Rachna deposited Rs. 25000 in his savings bank account later he withdraw Rs. 2500 from. How much money was left in her account.

T – 1 min
S – Whole numbers

Ans.

60. The total number of middle aged, young people and children in the town is 96209. If the no of old aged people is 29642 and that of young people is 29167. Determine the number of children?

T – 1 min
S – Whole numbers

Ans.

61. A shopkeeper purchased 115 fan sets. If the cost of each set is Rs. 1235, determine the cost of all the sets together?

T – 1 min
S – Whole numbers

Ans.

62. Find the common factors of 48, 84 and 75.

T – 1 min
S – Whole numbers

Ans.

63. Determine the HCF of numbers 300 and 450.

T – 1 min
S – Whole numbers

Ans.

64. What is the place value of the digit 3 in the number 2573841.

T – 1 min
S – Whole numbers

Ans.

65. Write the next three consecutive whole numbers of the number 99.

T – 1 min
S – Whole numbers

Ans.

66. Write three consecutive even whole numbers succeeding 98.

T – 2 min
S – Whole numbers

Ans.

67. Write the smallest 4 digit number using each of the digit 3, 7, 0 and 9.

T – 2 min
S – Whole numbers

Ans.

68. Write co prime numbers up to 15.

T – 2 min
S – Whole numbers

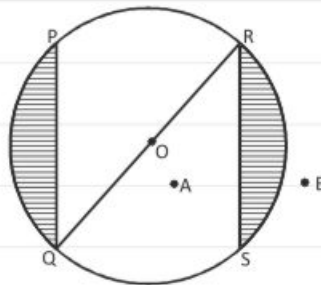
Ans.

69. Find the least number which divided by 5,7 and 14.

T – 2 min
S – Whole numbers

Ans.

Identify the following



70. The centre of the circle.

T – 2 min
S – Basic geometrical ideas

Ans.

71. All radius.

T – 2 min
S – Basic geometrical ideas

Ans.

72. Diameter

T – 2 min
S – Basic geometrical ideas

Ans.

73. A point in the interior.

T – 2 min
S – Basic geometrical ideas

Ans.

74. A point in the exterior.

T – 2 min
S – Basic geometrical ideas

Ans.

75. A segment.

T – 2 min
S – Basic geometrical ideas

Ans.

76. A sector.

T – 2 min
S – Basic geometrical ideas

Ans.

Question 77 to 80. Draw a sketch of a quadrilateral PQRS and state the following:

77. Two pairs of adjacent angles.

T – 2 min
S – Basic geometrical ideas

Ans.

78. Two pairs of opposite angles.

T – 2 min
S – Basic geometrical ideas

Ans.

79. Two pairs of opposite sides.

T – 2 min
S – Basic geometrical ideas

Ans.

80. Two pairs of adjacent sides.

T – 2 min
S – Basic geometrical ideas

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

81. Write down the concept of making a circular garden.

T – 2 min
S – Basic geometrical ideas

Ans.

82. Draw diagram of open and closed curves.

T – 2 min
S – Basic geometrical ideas

Ans.

83. Fill in the blanks

(i) 1 crore = _____ lakh.

(ii) 10 million = _____ ten thousand.

T – 2 min
S – Knowing our numbers

Ans.

84. Write the greatest and smallest 4 digit number using four different digits with condition that 7 occurs at ten's place.

T – 2 min
S – Knowing our numbers

Ans.

85. Solve the following:
(i) XIX + XC
(ii) XX+XL

T – 2 min
S – Knowing our numbers

Ans.

86. Define the property distributivity of multiplication over addition of whole number.

T – 2 min
S – Whole numbers

Ans.

Question 87 to 90. Complete the following sentences

87. _____ is a factor of every number.

T – 2 min
S – Playing with numbers

Ans.

88. _____ number is a factor of itself.

T – 2 min
S – Playing with numbers

Ans.

89. _____ number is a multiple of itself.

T – 2 min
S – Playing with numbers

Ans.

90. First five multiples of 15 _____,

T – 2 min
S – Playing with numbers

Ans.

91. Find the prime factorisation of 680.

T – 2 min
S – Playing with numbers

Ans.

92. Find the prime factorisation of 982.

T – 2 min
S – Playing with numbers

Ans.

93. Find the HCF of 85 and 95.

T – 2 min
S – Playing with numbers

Ans.

94. Find the LCM of 36 and 135.

T – 2 min
S – Playing with numbers

Ans.

95. Find the LCM of 62 and 28.

T – 2 min
S – Playing with numbers

Ans.

96. Three bells are ringing continuously at intervals of 30, 36 and 45 minutes respectively. At what time they will ring together.

T – 3 min
S – Playing with numbers

Ans.

97. Find the HCF of 80, 90 and 120 by division method.

T – 3 min
S – Playing with numbers

Ans.

98. Find the HCF of 180 and 226, find their LCM also.

T – 3 min
S – Playing with numbers

Ans.

99. Find the least number which when divided by 36, 48 and 52 leaves a remainder 3 in each case.

T – 3 min
S – Playing with numbers

Ans.

100. Two containers contain 38 and 48 liters of milk respectively. Find the maximum capacity of a container which can measure milk of both containers when used an exact number of times.

T	– 3 min
S	– Playing with numbers

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

Brain Teasers



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