

CBSE Sample Paper

Maths Set – A

Class 7

Total marks: 90

1. All questions are compulsory.
2. The question paper consists of 34 questions divided into four sections A,B,C and D.
3. Section A contains 10 questions of 1 mark each, which are multiple choice type questions, Section B contains 8 questions of 2 marks each, Section C contains 10 questions of 3 marks each, Section D contains 6 questions of 4 marks each.
4. There is no overall choice in the paper. However, internal choice is provided in one question of 2 marks,3 questions of 3 marks and two questions of 4 marks.
5. Use of calculators is not permitted.

Time Allotted: 03:00:00

Maximum Marks:90

Section - A

- 1) The average of 11, 12, 13, 14 and x is 13. The value of x is
 - (A) 15.
 - (B) 17.
 - (C) 19.
 - (D) 21.
- 2) The median of the numbers, 2,2,2,3,3,4,5,5,5,6,6,8,9,7,7 is

(A) 2

(B) 3

(C) 5

(D) 9

3) The average of 6.2, 8.4 and 12.4 is

(A) 0.4.

(B) 0.9.

(C) 4.

(D) 9.

4) Simplified value of is

(A)

(B) .

(C) .

(D)

5) If $3x^2 + 2x - a = 10$ and $x = 1$, then the value of a is

(A) -5.

(B) 0.

(C) 1.

(D) 5.

6) In the given figure find the value of x if $l \parallel m$.

(A) 360

(B) 300

(C) 450

(D) 900

7) The value of x in $35\% + x\% = 100\%$ is

(A) 60%.

(B) 65%.

(C) 45%.

(D) 75%.

8) If the length and breadth of a rectangular field is 10 cm and 6 cm respectively then the perimeter of the field would be

(A) 15 cm.

(B) 46 cm.

(C) 32 cm.

(D) 84 cm.

Section - B

9) (i) Find the angle, which is equal to its complement. (ii) Find the angle, which is equal to its supplement.

10) Solve the equation, $3x + 5 = 11$ by trial and error method.

11) Ravi sows 4 rose plants in a row. The distance between two adjacent rose plants is $\frac{3}{7}$ m. Find the distance between the first and the last plant.

12) Subtract the sum of (-545) and 125 from 1005.

13) Find the value of $100 - 10 \times 3$ for $x = 2$.

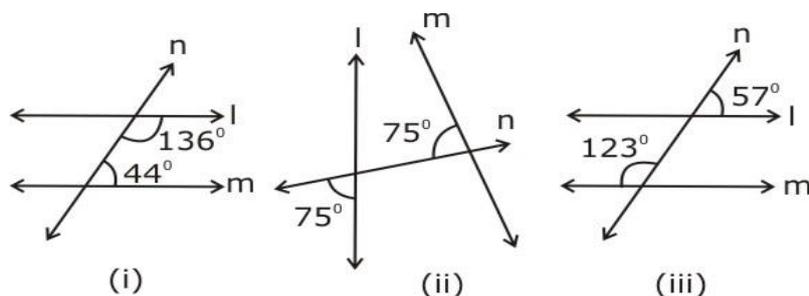
14) Find the value $a^2 + 2ab + b^2$ for $a = 3$, $b = 2$.

Or,

What is the circumference of a circle of diameter 10cm ? (Take = 3.14)

Section - C

15) In the given figure, decide whether l is parallel to m:



16) The loss in a company has decreased from 20 lacs to 5 lacs in one year. Find the loss decrease percentage.

17) Solve $2(x - 2) + 3(4x - 1) = 0$

Or,

The length of a rectangular field is twice its breadth. If the perimeter of the field is 150 m, find its length and breadth.

18) Find the value of the following expression for $m = 3$ and $n = 1$.

$$(150m + 11n)^2 - (150m - 11n)^2$$

19) The height of 15 students are given in a 165, 155, 168, 160, 163, 162, 165, 168, 156, 159, 160, 164, 163, 165, 160.

Find :

- (i) The range of height
- (ii) The Mode
- (iii) The Median

20)

State true or false :

1) Reciprocal of $\frac{2}{3}$ is $\frac{3}{2}$.

2) $\frac{1}{2}$ of 36 is 16 .

3) The perimeter of an equilateral triangle of side 3.3 cm is 9.27 cm .

21) Simplify $\frac{1}{2} + \frac{3}{7} - 1\frac{1}{4} - 2\frac{1}{2}$

Or,

22)

Fill in the blanks :

(i) $(-5) \times \underline{\hspace{2cm}} = 5$

(ii) $\underline{\hspace{2cm}} \div 55 = 0$

(iii) $\underline{\hspace{2cm}} \div (-17) = -4$

23) A rectangular garden is 65cm long and 50cm wide. Two cross paths each 2m wide are to be constructed parallel to the sides. If these paths pass through the centre of the garden, find the cost of constructing the paths at the rate Rs. 69 per m².

24) A rectangular garden is 90 m long and 75 m broad. A path 5 m wide is to be built out around it. Find the area of the path.

Or,

The figure given below, shows two circles with the same centre. The radius of the larger circle is 10 cm and the radius of the smaller circle is 4 cm.

Find:

(a) the area of the larger circle,

(b) the area of the smaller circle,

(c) the shaded area between the two circles. (Take = 3.14)

Section - D

25) Solve the following equations:

(i) $2y + 5/2 = 37/2$,

(ii) $(5x)/2 = 25/2$,

(iii) $6z + 10 = -2$,

(iv) $(a/4) + 7 = 5$.

26) Solve:

a) $0.5x - (0.8 - 0.2x) = 0.2 - 0.3x$

b) $\frac{x + 2}{x - 2} = \frac{7}{3}$

27) In a class test containing 15 questions, 3 marks are given for every correct answer and (–1) marks given for every incorrect answer.

(i) Gurpreet attempts all the questions but only 9 of her answers are correct. What is her total score?

(ii) One of her friends gets only 5 answers correct. What will be her score?

28) In a class test containing 20 questions, 5 marks are awarded for every correct answer and (–2) marks awarded for every incorrect answer and 0 for questions not attempted.

(i) Mohan gets fourteen correct and six incorrect answers. What is his score?

(ii) Reshma gets fifteen correct answers and five incorrect answers. What is her score?

(iii) Heena gets ten correct and eight incorrect answers out of the seven questions she attempts. What is her score?

29) The marks scored by 15 students (out of 25) in a mathematics test are as follows: 19, 25, 23, 20, 9, 20, 15, 10, 5, 16, 25, 20, 24, 12, 20

Find the mode and median of this data. Are they same?

30) The weights (in kg.) of 15 students in a class are:

38, 42, 35, 37, 45, 50, 32, 43, 43, 40, 36, 38, 43, 38, 47

(i) Find the mode and median of this data.

(ii) Is there more than one mode?

Or,

Following table shows the points of each player scored in four games:

Player	Game 1	Game 2	Game 3	Game 4
A	14	16	10	10
B	0	8	6	4
C	8	11	Did not play	13

Now, answer the following questions:

(i) Find the mean to determine A's average number of points scored per game.

(ii) To find the mean number of points per game for C, would you divide the total points by 3 or by 4? Why?

(iii) B played in all the four games. How would you find the mean?

(iv) Who was the best performer?

31) Find the value of the following expressions for

$a = 3, b = 2.$

(i) $(a + b)^2$

(ii) $13(7a - 4b)$

(iii) $a^2 + 2ab + b^2$

(iv) $a^3 - b^3$

32) If Rs 250 is to be divided amongst Ravi, Raju and Roy such that Ravi gets two parts, Raju three parts and Roy five parts. How much money will each get? What will it be in percentage?

33) The area of a square and a rectangle are equal. If the side of the square is 40 cm and the breadth of the rectangle is 25 cm, find the length of the rectangle. Also, find the perimeter of the rectangle.

Or,

Anand took a wire of length 44 cm and bent it into the shape of a circle. Find the radius of that circle. Also, find its area. If the same wire is bent into the shape of a square, what will

be the length of each of its sides? Which figure encloses more area – the circle or the square?

34) (i) From the sum of $13x - 8y + 11$ and $-y - 11$, subtract $3x - 3y - 11$.

(ii) From the sum of $4 + 3x$ and $5 - 4x + 2x^2$, subtract the sum of $3x^2 - 5x$ and $-x^2 + 2x + 5$.