

# CBSE Sample Paper class 6 Maths Set 3

SUBJECT: MATHEMATICS

CLASS : VI

MAX. MARKS : 80




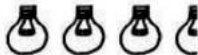
DURATION : 3 HRS

## General Instructions:

- (i). All questions are compulsory.
- (ii). This question paper contains 30 questions divided into four Sections A, B, C and D.
- (iii). **Section A** comprises of 6 questions of 1 mark each. **Section B** comprises of 6 questions of 2 marks each. **Section C** comprises of 10 questions of 3 marks each and **Section D** comprises of 8 questions of 4 marks each.
- (iv). Use of Calculators is not permitted


## SECTION – A

1. Cadets are marching in a parade. There are 5 cadets in a row. What is the rule which gives the number of cadets, given the number of rows?
2. Represent the integer  $-9$  on a number line.
3. The following are the number of electric bulbs purchased for a lodging house during the first four months of a year. (Each bulb symbol represents 10 bulbs.) Find the total numbers of bulbs during the four months.








January	
February	
March	
April	

4. The perimeter of a rectangle is 130 cm. If the breadth of the rectangle is 30 cm, find its length.
5. Find the ratio of 500 ml to 2 litres.
6. Express 2 m 45 cm as metres using decimals.

## SECTION – B

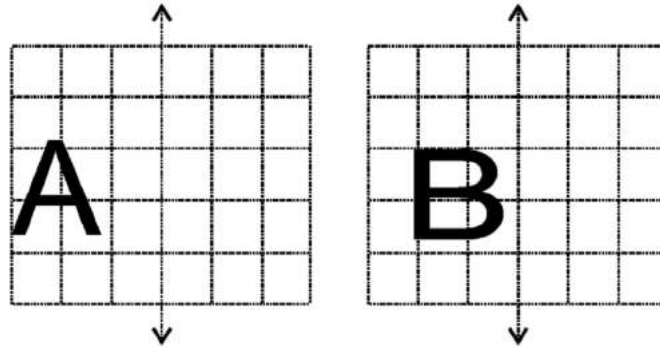
7. Divide Rs. 240 in the ratio 3 : 5
8. Draw a line segment of length 9.5 cm and construct its perpendicular bisector.
9. The side of a square hall is 8 m 5 dm. Find the cost of fixing tiles on its floor at the rate of Rs. 300 per sq.m.
10. Find the rule, which gives the number of matchsticks required to make matchstick pattern of letter E as . Use a variable to write the rule.

11. Following is the pictograph of the number of Maruti Van manufactured by a factory in a particular week.

Days	Number of Maruti Van manufactured	 = 200 Maruti Vans
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		

- (a) On which day were the minimum numbers of Maruti Van manufactured?  
 (b) On which day were the maximum numbers of Maruti Van manufactured?

12. In each figure alongside, a letter of the alphabet is shown along with a vertical line. Take the mirror image of the letter in the given line. Find which letters look the same after reflection (i.e. which letters look the same in the image) and which do not.



### SECTION – C

13. Find the value of the following:

- (a)  $(30) + (-23) + (-63) + (+55)$   
 (b)  $(-9) + (+4) + (-6) + (+3)$

14. Subtract :

- (a) Rs 6.36 from Rs 12.40  
 (b) 0.314 kg from 2.107 kg

15. A floor is 5 m long and 4 m wide. A square carpet of sides 3 m is laid on the floor. Find the area of the floor that is not carpeted.

16. A rectangular box has height  $h$  cm. Its length is 5 times the height and breadth is 10 cm less than the length. Express the length and the breadth of the box in terms of the height.

17. A survey of 120 school students was done to find which activity they prefer to do in their free time.

Preferred activity	Number of students
Playing	45
Reading story books	30
Watching TV	20
Listening to music	10
Painting	15

Draw a bar graph to illustrate the above data taking scale of 1 unit length = 5 students. Which activity is preferred by most of the students other than playing?

18. Construct with ruler and compasses, angles of following measures: (a)  $120^\circ$  (b)  $90^\circ$
19. Find the perimeter of each of the following shapes :
- (a) A triangle of sides 3 cm, 4 cm and 5 cm.
  - (b) An equilateral triangle of side 9 cm.
  - (c) An isosceles triangle with equal sides 8 cm each and third side 6 cm.
20. 250 people are working in an office, out of which 150 are men and the remaining are women. Find the ratio of (a) the total number of people to that of men (b) the total number of people to that of women (c) the number of men to that of women.
21. On a squared paper, sketch the following:
- (a) A quadrilateral with both horizontal and vertical lines of symmetry.
  - (b) A hexagon with exactly two lines of symmetry.
22. In a year, Seema earns Rs 1,50,000 and saves Rs 50,000. Find the ratio of
- (a) Money that Seema earns to the money she saves.
  - (b) Money that she saves to the money she spends.

### SECTION – D

23. Draw a rough figure and label suitably in each of the following cases:
- (a) Point P lies on  $\overline{AB}$ .
  - (b)  $\overline{XY}$  and  $\overline{PQ}$  intersect at M.
  - (c) Line  $l$  contains E and F but not D.
  - (d)  $\overline{OP}$  and  $\overline{OQ}$  meet at O.
24. A rectangular path of 60m length and 3m width is covered by square tiles of side 25cm. How many tiles will there be in one row along its width? How many such rows will be there? Find the number of tiles used to make this path?
25. A car travels 180 km in  $2\frac{1}{2}$  hours.
- (a) How much time is required to cover 60 km with the same speed?
  - (b) Find the distance covered in 2 hours with the same speed.
26. Determine if the following ratios form a proportion. Also, write the middle terms and extreme terms where the ratios form a proportion.
- (a) 2 kg : 80 kg and 25 g : 625 g
  - (b) 200 ml : 2.5 litre and Rs 4 : Rs 50

27. Following table shows the monthly expenditure of Imran's family on various items.

Items	Expenditure (in Rs)
House rent	3000
Food	3400
Education	800
Electricity	400
Transport	600
Miscellaneous	1200

To represent this data in the form of a bar diagram, here are the steps.

(a) Draw two perpendicular lines, one vertical and one horizontal.

(b) Along the horizontal line, mark the 'items' and along the vertical line, mark the corresponding expenditure.

28. Give expressions in the following cases.

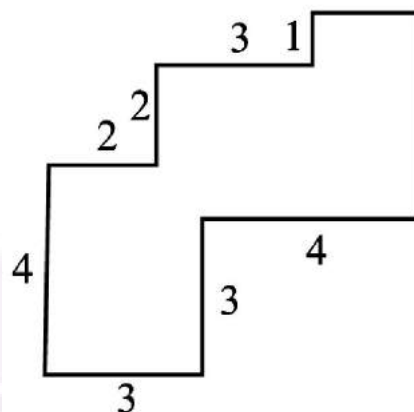
(a) 5 times  $y$  to which 3 is added

(b)  $y$  is multiplied by  $-8$  and then 5 is added to the result

(c)  $y$  is multiplied by 5 and the result is subtracted from 16

(d)  $y$  is multiplied by  $-5$  and the result is added to 16.

29. By splitting the following figures into rectangles, find their areas (The measures are given in centimetres).



30. Complete the table and by inspection of the table find the solution to the equation  $m - 7 = 3$ .

$m$	7	8	9	10	11	12
$m - 7$						