

# CBSE Class 8 Maths Sample Paper SA 2 Set 4

**SUBJECT: MATHEMATICS**  
**CLASS : VIII**

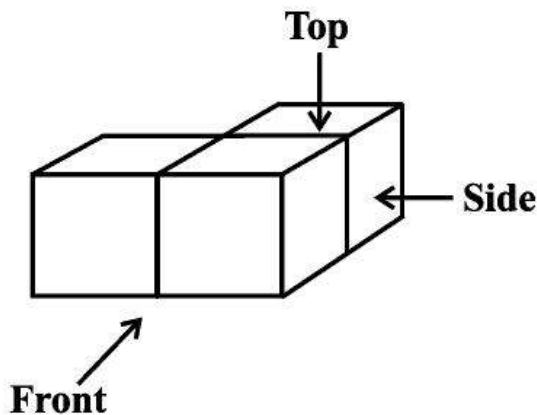
**MAX. MARKS : 60**  
**DURATION : 2½ HRS**

## General Instructions:

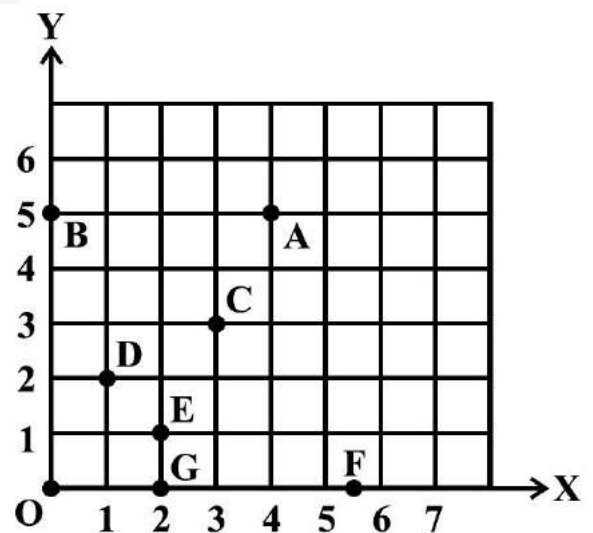
1. All questions are compulsory.
2. Question paper is divided into four sections: Section A consists 8 questions each carry 1 marks, Sections B consists 6 questions each carry 2 marks, Sections C consists 8 questions each carry 3 marks and Sections D consists 4 questions each carry 4 marks

## SECTION – A

1. Find the product :  $a^2(2ab - 5c)$
2. Find the area of a rhombus whose diagonals are of lengths 20 cm and 4.5 cm.
3. Find the value of  $(6^{-1} - 8^{-1})^{-1}$
4. Express Charge of an electron is 0.000,000,000,000,000,16 coulomb in standard form.
5. A machine in a soft drink factory fills 600 bottles in six hours. How many bottles will it fill in five hours?
6. Factorise:  $14pq + 35pqr$
7. Draw the top view of the given solid:



8. Write the coordinate of point A in the given graph:

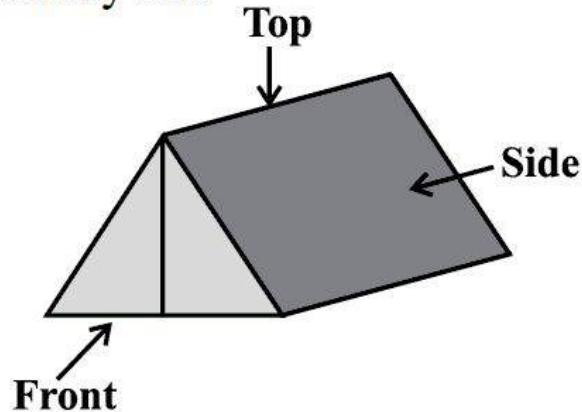


## SECTION – B

9. Find  $m$  so that  $(-3)^{m+1} \times (-3)^5 = (-3)^7$
10. The area of a trapezium shaped field is 480 m<sup>2</sup>, the distance between two parallel sides is 15 m and one of the parallel side is 20 m. Find the other parallel side.

11. An electric pole, 14 metres high, casts a shadow of 10 metres. Find the height of a tree that casts a shadow of 15 metres under similar conditions.
12. Draw the front view and top view of the below given object:

**A military tent**



13. Using Euler's formula find the unknown.

Faces	?	5
Vertices	6	?
Edges	12	9

14. If  $21y5$  is a multiple of 9, where  $y$  is a digit, what is the value of  $y$ ?

### SECTION – C

15. (a) Add:  $p(p - q)$ ,  $q(q - r)$  and  $r(r - p)$   
 (b) Subtract:  $3a(a + b + c) - 2b(a - b + c)$  from  $4c(-a + b + c)$

16. Simplify:  $\frac{25 \times x^{-4}}{5^{-3} \times 10 \times x^{-8}}$

17. Daniel is painting the walls and ceiling of a cuboidal hall with length, breadth and height of 15 m, 10 m and 7 m respectively. From each can of paint  $100 \text{ m}^2$  of area is painted. How many cans of paint will she need to paint the room?

18. If 15 workers can build a wall in 48 hours, how many workers will be required to do the same work in 30 hours?

19. Divide  $z(5z^2 - 80)$  by  $5z(z + 4)$

20. Factorise the expressions and divide as directed:  $(y^2 + 7y + 10) \div (y + 5)$

21. Factorise (i)  $6xy - 4y + 6 - 9x$  (ii)  $x^2 + xy + 8x + 8y$

22. Find the values of the letters in the following:

$$\begin{array}{r} 4 \text{ A} \\ + 9 \text{ 8} \\ \hline \text{C B 3} \end{array}$$

### SECTION – D

23. Use the Identity  $(x + a)(x + b) = x^2 + (a + b)x + ab$  to find the following:

(i)  $501 \times 502$

(ii)  $95 \times 103$

24. Water is pouring into a cuboidal reservoir at the rate of 60 litres per minute. If the volume of reservoir is  $108 \text{ m}^3$ , find the number of hours it will take to fill the reservoir. What are the advantages of reservoir for farmer?

25. A train is moving at a uniform speed of 75 km/hour. (i) How far will it travel in 20 minutes? (ii) Find the time required to cover a distance of 250 km.

26. The following table gives the quantity of petrol and its cost.

<b>No. of Litres of petrol</b>	10	15	20	25
<b>Cost of petrol in Rs</b>	500	750	1000	1250

Plot a graph to show the data.

