

CBSE Sample Paper Class 7 Maths Set 3

**SUBJECT: MATHEMATICS CLASS :
VII**

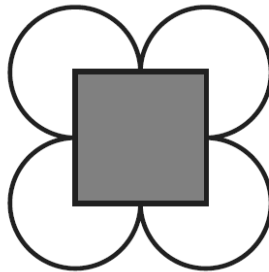
**MAX. MARKS : 80
DURATION : 2½HRS**

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. If $p = -2$, find the value of $-4p + 7$
2. Express 512 using exponential notation.
3. Reduce $\frac{-45}{30}$ to the standard form.
4. Find the area of a circle of radius 30 cm (use $\pi = 3.14$).
5. What cross-sections do you get when you give a horizontal cut to the circular pipe?
6. Find the number of lines of symmetry of the given figure:



SECTION – B

7. Find the whole quantity if 5% of it is 600.
8. Draw a rough sketch of a quadrilateral with a rotational symmetry of order more than 1 but not line symmetry.
9. Simplify and write the answer in the exponential form: $[(2^2)^3 \times 3^6] \times 5^6$
10. If two cubes of dimensions 2 cm by 2cm by 2cm are placed side by side, what would the dimensions of the resulting cuboid be?
11. Find the value of $\frac{3}{13} \div \left(\frac{-4}{65}\right)$

12. The circumference of a circle is 31.4 cm. Find the radius and the area of the circle? (Take $\pi = 3.14$)

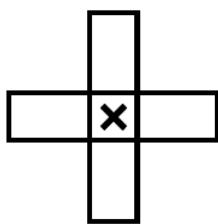
SECTION – C

13. Simplify: $\frac{(2^5)^2 \times 7^3}{8^3 \times 7}$

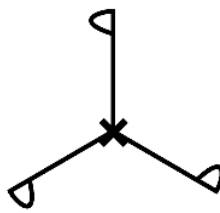
14. An elevator descends into a mine shaft at the rate of 6 m/min. If the descent starts from 10 m above the ground level, how long will it take to reach – 350 m.

15. Find any three rational numbers between $\frac{-5}{6}$ and $\frac{5}{8}$

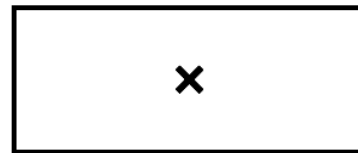
16. Give the order of the rotational symmetry of the given figures about the point marked x.



(i)



(ii)



(iii)

17. Add:

(i) $14x + 10y - 12xy - 13$, $18 - 7x - 10y + 8xy$, $4xy$

(ii) $5m - 7n$, $3n - 4m + 2$, $2m - 3mn - 5$

18. When $a = 0$, $b = -1$, find the value of the given expressions: (i) $2a^2b + 2ab^2 + ab$ (ii) $a^2 + ab + 2$

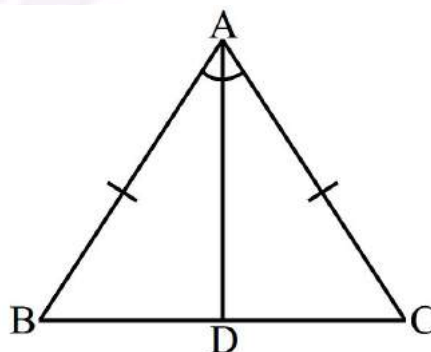
19. Construct the right angled ΔPQR , where $m\angle Q = 90^\circ$, $QR = 8\text{cm}$ and $PR = 10\text{cm}$.

20. In the below figure, $AB = AC$ and AD is the bisector of $\angle BAC$.

(i) State three pairs of equal parts in triangles ADB and ADC .

(ii) Is $\Delta ADB \cong \Delta ADC$? Give reasons.

(iii) Is $\angle B = \angle C$? Give reasons.

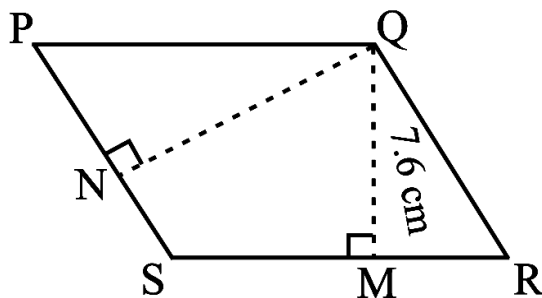


21. A path 1 m wide is built along the border and inside a square garden of side 30 m. Find:

(i) the area of the path

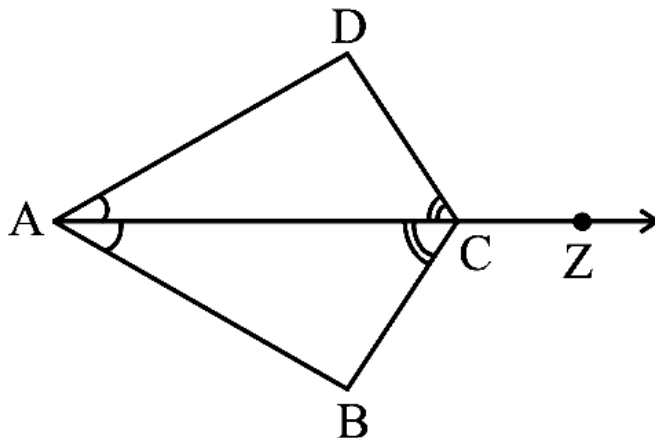
(ii) the cost of planting grass in the remaining portion of the garden at the rate of Rs 40 per m^2 .

22. PQRS is a parallelogram (see the below). QM is the height from Q to SR and QN is the height from Q to PS. If SR = 12 cm and QM = 7.6 cm. Find: (a) the area of the parallelogram PQRS (b) QN, if PS = 8 cm



SECTION – D

23. In the below figure, ray AZ bisects $\angle DAB$ as well as $\angle DCB$.
- State the three pairs of equal parts in triangles BAC and DAC.
 - Is $\triangle BAC \cong \triangle DAC$? Give reasons.
 - Is $AB = AD$? Justify your answer.
 - Is $CD = CB$? Give reasons.



24. Anita takes a loan of Rs 5,000 for donating books to the poor, at 15% per year as rate of interest. Find the interest she has to pay at end of three years.
25. (a) From the sum of $3x - y + 11$ and $-y - 11$, subtract $3x - y - 11$.
 (b) What should be taken away from $3x^2 - 4y^2 + 5xy + 20$ to obtain $-x^2 - y^2 + 6xy + 20$?
26. Represent these numbers on the number line. (i) $\frac{7}{4}$ (ii) $-\frac{5}{6}$ (iii) $\frac{4}{7}$ (iv) $-\frac{6}{9}$
27. Construct $\triangle ABC$, given $m\angle A = 60^\circ$, $m\angle B = 30^\circ$ and $AB = 5.8$ cm.
28. Two cross roads, each of width 5 m, run at right angles through the centre of a rectangular park of length 70 m and breadth 45 m and parallel to its sides. Find the area of the roads. Also find the cost of constructing the roads at the rate of Rs 105 per m^2 .
29. Express the number appearing in the following statements in standard form.
- The distance between Earth and Moon is 384,000,000 m.
 - Speed of light in vacuum is 300,000,000 m/s.
 - Diameter of the Earth is 1,27,56,000 m.
 - Diameter of the Sun is 1,400,000,000 m.

30. For given solid, draw the top view, front view and side view.

