MATHS

BOOKS - NAVNEET PUBLICATION - MAHARASHTRA BOARD

THREE DIMENSIONAL SHAPES

Question Bank

1. Complete the table below by writing the number of faces, edges and vertices each

figure has :

Name	Cylinder	Cone	Pentagonal pyramid	Hexagonal pyramid	Hexagonal prism	Pentagonal prism
Shape						
Faces	1 curved 2 circular	1 circular flat 1 curved	6	7	8	7
Vertices	0	1	6	7	12	10
Edges	2 circular	1 circular	10	12	18	15

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2. How many edges does a cuboid have ?

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3. How many faces does a cube have?

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4. How many faces does a cylinder have?

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5. How many edges does a cone have?

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6. What are the number of vertices, edges and faces of a pentagonal pyramid ?

7. Choose the correct alternative from those given below each statement and complete the statement:

Which of the following statements is false ?

A. A line segment has a definite length

B. Only one line can be drawn passing through three collinear points

C. Two lines which do not intersect are called parallel lines.

D. The point at which three lines meet is called the point of concurrence.

Answer: C

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8. Answer the question:

$$(-5) - (-7) = ?$$

A. -2

B. $+2$

C. -12

D. $+12$

Answer: B

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9. Sujata bought $2\dfrac{3}{4}$ kg of sugar. Her mother bought $1\dfrac{1}{4}$ kg of sugar. How much more sugar did Sujata buy than her mother ?

A. $1\dfrac{1}{2}$ kg

B. 4 kg

C. 1 kg

D. $\dfrac{5}{4}$ kg

Answer: A

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10. Choose the correct alternative from those given below each statement and complete the statement:

What is the difference in the place values of 2 in the number 32.725?

A. 2.02

B. 1.08

C. 1.998

D. 1.98

Answer: D

11. Write answers to the following questions :

The number of four various plants in a garden are 14, 35, 21, and 49. Decide and write the scale to represent this information as a bar graph.

12. Which of the following English alphabet has two axes of symmetry?

A, M, H, V

13. Write answers to the following questions :

Which three-digit number less than 110 is completely divisible by 3 as well as 4?

14. Write answers to the following questions :

What is the HCF of 14 and 126?

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15. Write answers to the following questions :

Convert $\dfrac{9}{40}$ into decimal fraction.

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16. Solve any four sub questions from the following :

Match the following :

Group A	Group B
(i) ←—————————	(a) Plane
(ii) ←—————————→	(b) Line segment
(iii)	(c) Line
(iv) •——————————•	(d) Ray

ite angle (ii) an obtuse angle

17. Solve any four sub questions from the following :

Draw

an acute angle

18. Solve any four sub questions from the

following :

Draw

an obtuse angle.

19. Solve any four sub questions from the following :

Find the HCF of 24 and 36.

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20. Solve any four sub questions from the following :

Add 27.179 to 95.5.

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21. Solve any four sub questions from the following :

Which of the following numbers is completely divisible by 3, 4 and 9? 12944,10944

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22. $7\dfrac{1}{8} - 6\dfrac{1}{10}$

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23. A spherical object has a density of 13.4 g/cm^3. If its mass is 40 g, what is the volume of the sphere, rounded to one decimal place?
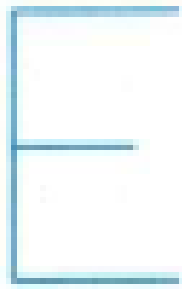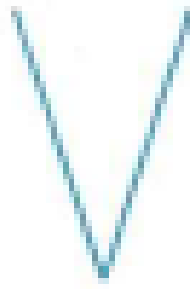
24. Solve any three sub questions from the following :

Draw the axis/axes of symmetry of the

following letters of the English alphabet:

(i)

(ii)

25. Solve any three sub questions from the following :

Find the LCM of 20 and 15.

26. Solve any three sub questions from the following :

22 litres of milk is distributed equally among 5 families. How many litres of milk does each family get ?
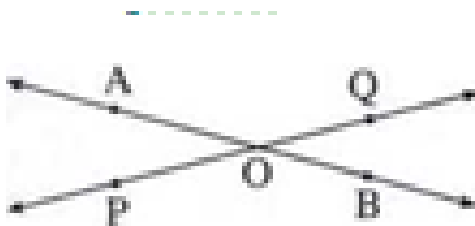
27. Solve any three sub questions from the following :

Fill in the blanks : An angle greater than.....but less than.....is called a reflex angle.

28. Observe the figure and write collinear points :

29. Supplementary angle of $108.5°$ is ....

30. Solve any two sub questions from the following :

Shamrao grows mangoes in $\dfrac{3}{7}$ th part of his orchard, oranges in $\dfrac{2}{5}$ th part and banana in the remaining part. If the area of the orchard is 70 acres, in how many acres of orchard does he grow banana

31. Solve any two sub questions from the following :

A car travelled 207.35 km on the first day and 200.82 km on the second day. Of this total journey, 101.65 km were hilly terrain. What distance did the car travel on planes ?

32. Put the proper sign $>$ or $<$ in the boxes below : $-7\ \square\ -9$

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33. Put the proper sign $>$ or $<$ in the boxes below : $-4\ \square\ 0$

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34. Put the proper sign $>$ or $<$ in the boxes

below : $6 \square 8$

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35. Put the proper sign $>$ or $<$ in the boxes

below : $-6 \square -10$

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36. Solve any two sub questions from the following :

Marks scored by 4 students are given below. (Marks out of 100) Draw a bar graph

Name	Amit	Ashwin	Ahmed	Anurag
Marks	90	60	80	70

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37. Solve any two sub questions from the following :

Three lighthouses flash their light after every 5

sec, 10 sec and 15 sec. They flash together at 7 :

00 p.m. When will they next flash together ?

38. Solve any two sub questions from the

following :

There are trees on both the sides of a straight

road. The distance between consecutive trees

is 11.2 m. If the road is 2 km 800 m long, how

many trees are there on the road ?

39. Choose the correct alternative from those given below each statement and complete the statement:

7 added to four times a number results in 39. Which of the following equations represents this ?

A. $4x = 39 + 7$

B. $4x + 7 = 39$

C. $4(x + 7) = 39$

D. $4x - 7 = 39$

Answer: B

40. Choose the correct alternative from those given below each statement and complete the statement:

What is the ratio of 175 g of sugar to 2 kg of sugar?

A. $1 : 16$

B. $35 : 40$

C. $7 : 80$

D. $35 : 80$

Answer: C

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41. Choose the correct alternative from those given below each statement and complete the statement:

An article bought for ₹ 200 is sold at ₹ 196. What is the profit/loss per cent?

A. Loss 4 %

B. Profit 4 %

C. Profit 2 %

D. Loss 2 %

Answer: D

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42. Choose the correct alternative from those given below each statement and complete the statement:

The lengths of three sides of 4 triangles are given below. Which triangle cannot be drawn?

A. 8.6 cm, 13.3 cm, 4.8 cm

B. 8.4 cm, 13.3 cm, 4.9 cm

C. 8.6 cm, 4.9 cm, 13.2 cm

D. 8.4 cm. 13.2 cm, 5.9 cm

Answer: B

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43. Write answer to the following question :

What is 10% of 10?

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44. Write answers to the following questions :

If you deposit ₹ 500 in a bank at 8 p.c.p.a., what

interest will you get at the end of the year ?

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45. Write answers to the following questions :

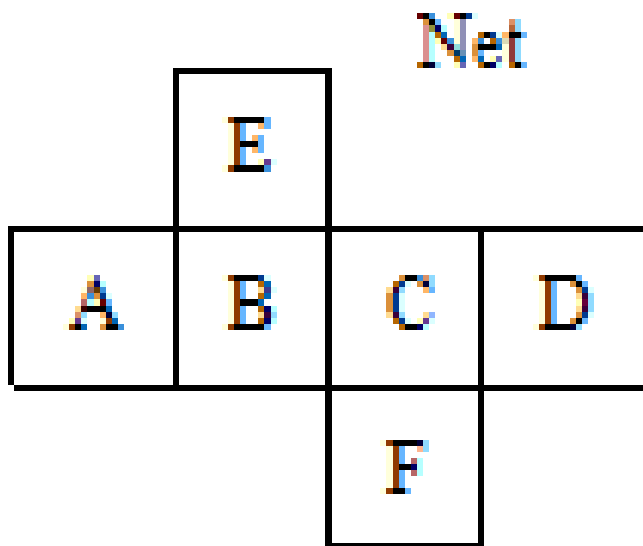ABCDEF is a hexagon. How many triangles will you get, if you join point A to the remaining points ?

46. Write answers to the following questions :

A net to prepare a cube is given in the figure. If the base of the cube be letter B, which letter

will not be adjacent to letter B ?

Net

47. Write answers to the following questions :

In   unitary   method,   which   of   the   four

mathematical operations is carried out first ?

48. Solve $y - 7 = 5$.

49. Solve the question in the following :

If a bunch of 10 flowers costs ₹ 25, how much will a bunch of 4 flowers cost?

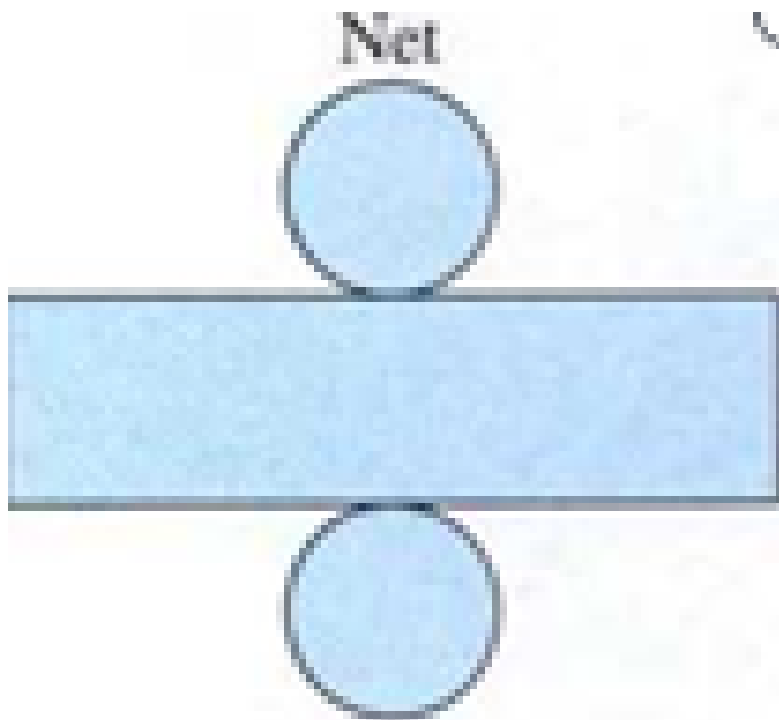**50.** An article bought for ₹ 400 is sold for ₹ 448. What is the profit per cent?

51. A meter is a measure of length, and 10 decimeters is equal in length to one meter. Calculate how many decimeters are in 12.5 meters.

52. Which shape can be made from this net?

Net

53. Solve any three sub questions from the following :

What is 4% of 225 ?

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54. Solve any three sub questions from the following :

8 article were purchased for ₹ 1200. What is the profit per article . If each was sold for ₹ 155 ?

55. Solve any three sub questions from the following :

Which two types of account can you open in a bank?

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56. Solve any three sub questions from the following :

The lengths of the sides of a triangle are

given. Write the type of triangle

4.3 cm, 5.2. cm 4.3 cm

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57. Solve any three sub questions from the following :

The lengths of the sides of a triangle are given. Write the type of triangle,

4 cm, 7 cm, 6 cm.

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58. Draw a line segment AB of length 4.8 cm.

Draw the perpendicular bisector of seg AB

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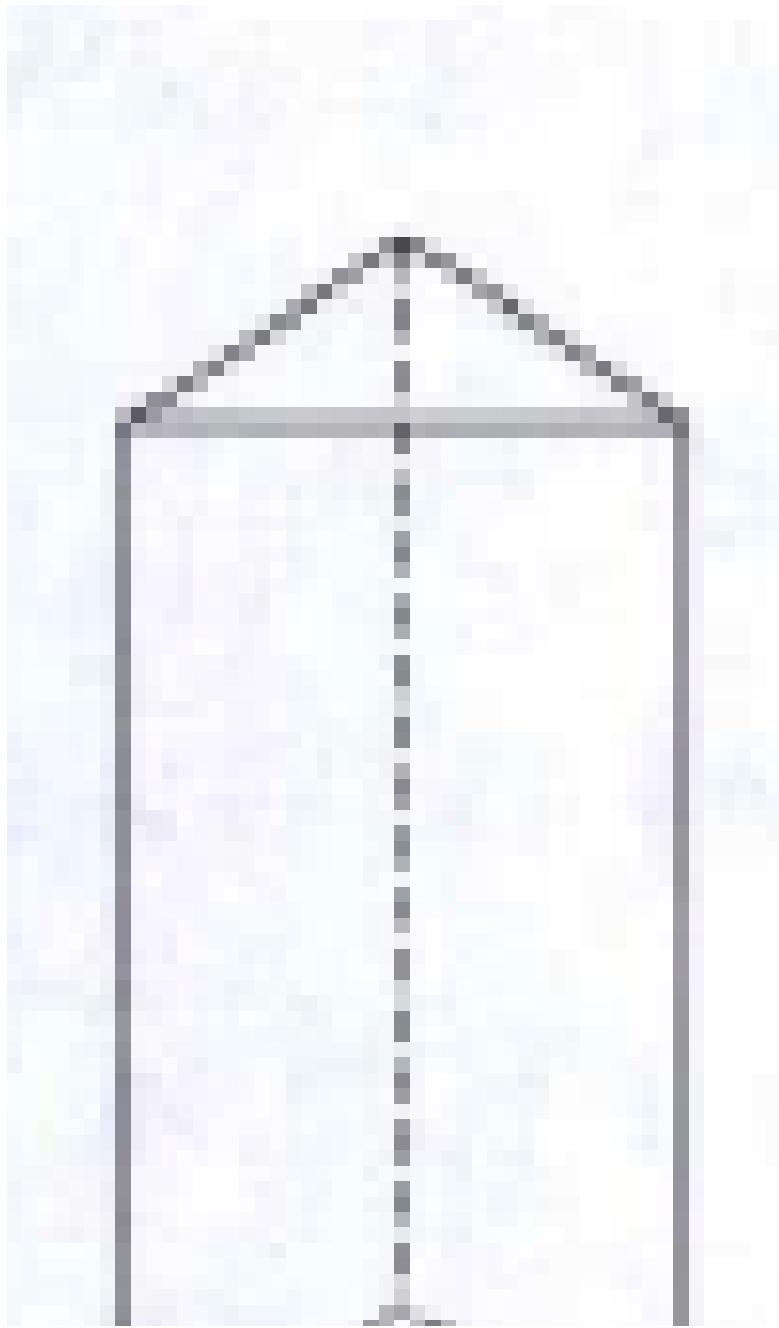
59. Solve any three sub questions from the

following :

Name the pairs of opposite sides of a □

PQRS.

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60. Look at the figure and answer :

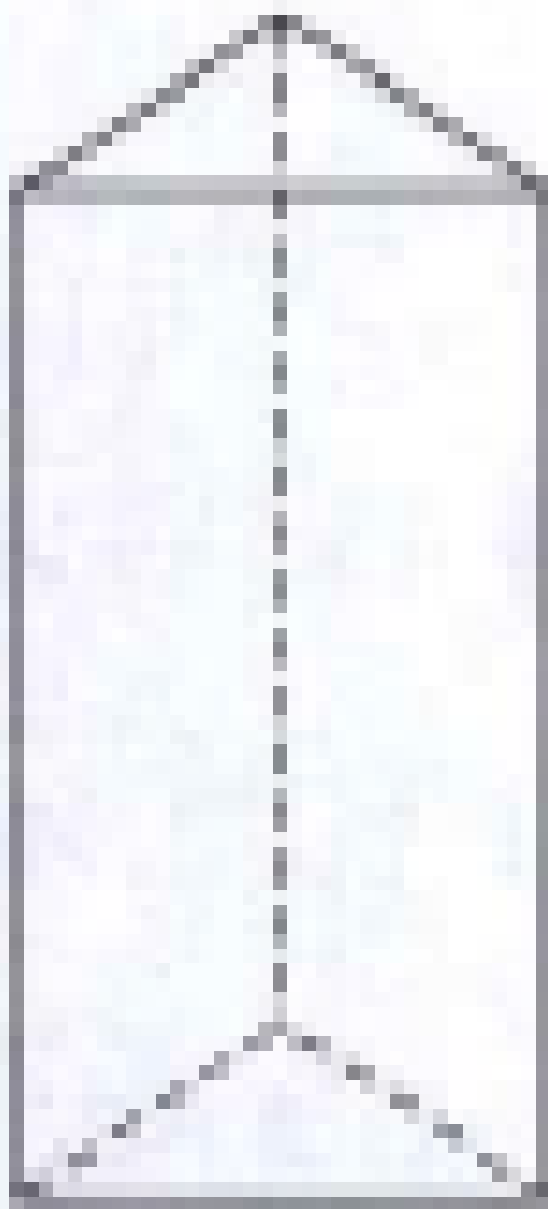What is the shape of the faces on the sides ?

Shape

61. Look at the figure and answer :

What is the shape of the faces at the bottom and the top?

Shape

62. Solve any two sub questions from the following :

The cost of 70 envelopes is ₹ 595. What is the cost of 24 such envelopes?

63. Solve any two sub questions from the following :

Kisanrao borrowed ₹ 36,000 from a bank at the rate of 6 p.c.p.a., to make a pond in his field. What amount will he return to the bank at the end of the year ?
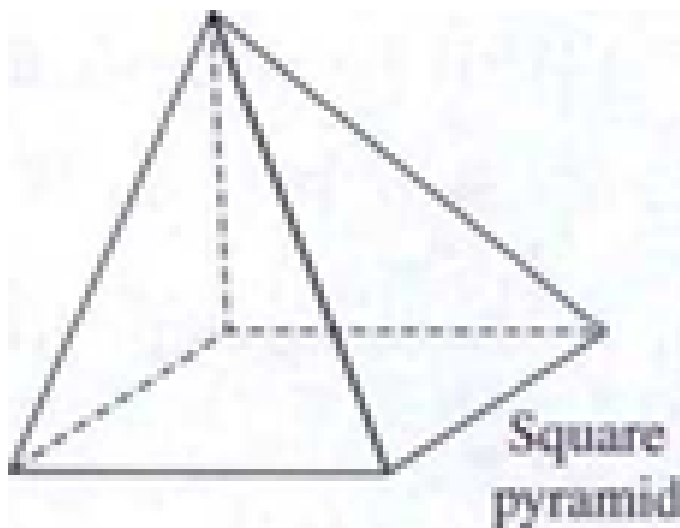
64. Solve any two sub questions from the following :

☐ PQRS is a quadrilateral in which $m\angle p = 80°$, $m\angle Q = 70°$ and $m\angle R = m\angle S$ Find the measures of $\angle R$ and $\angle S$

65. Write the number of faces and the number of edges of a square pyramid.

Square pyramid

66. Solve any two sub questions from the following :

Solve any two of the following equations

$$19 = m - 4$$

67. Solve any two sub questions from the following :

Solve any two of the following equations

$$5 = t + 9$$

68. Solve any two sub questions from the following :

Solve any two of the following equations

7 x = 49

69. Solve any two sub questions from the following :

A hostel is to be built for school going girls.

Two toilets are to be built for every 8 girls. If 72 girls will be living in the hostel, how many toilets will be required if this proportion is to be maintained ?

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70. Solve any two sub questions from the following :

Sohanlal bought some articles for ₹ 5000 and sold them for ₹ 5500, Mohanlal bought an

electric mixer for ₹ 3200 and sold it for ₹ 3552.

Whose transaction was more profitable ?

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