Choose the Correct Answer:

1. $\sqrt{(-8)^2 + (-6)^2} =$ .....

(a) $|-10|$ (b) ± 10 (c) 14 (d) -14

2. Which of the following is the greatest ?

(a) 2.3×10^4 (b) 2.3×10^5 (c) 3.2×10^4 (d) 3.2×10^5

3. The side length of a square whose area $9x^2$ cm^2 is ..... cm. where $x > 0$

(a) $3x$ (b) $3x^2$ (c) $9x$ (d) $9x^2$

4. If $-x > 4$, then .....

(a) $x > -4$ (b) $x > 4$ (c) $x < -4$ (d) $x < 4$

5. $2 \times 6 - 4 \times 2 =$ .....

(a) 4 (b) 8 (c) 10 (d) 2

6. $\sqrt{9 + 16} =$ .....

(a) 7 (b) 5 (c) 25 (d) -7

7. The multiplicative inverse of $\sqrt{\frac{100}{25}}$ is .....

(a) $\pm \frac{10}{5}$ (b) $\pm \frac{5}{10}$ (c) $\frac{10}{5}$ (d) $\frac{5}{10}$

8. The age of Amr now is x years , then his age 5 years ago is .....

(a) $5x$ (b) $x - 5$ (c) $5 - x$ (d) $x + 5$

9. If $4x = 20$, then $3x - 1 =$ .....

(a) 14 (b) 15 (c) 16 (d) 17

10. The S.S. of the inequality $x < 0$ in $\mathbb{N}$ is .....

(a) $\{0\}$ (b) $\{1\}$ (c) $\{0 , 1\}$ (d) $\varnothing$

11. $\sqrt{x^8} =$ .....

(a) x^8 (b) x^5 (c) x^6 (d) x^4

12. $\sqrt{\frac{25}{49}} =$ .....

(a) $\frac{5}{7}$ (b) $\frac{-5}{7}$ (c) $\pm\frac{5}{7}$ (d) $\frac{7}{5}$

13. $3 \times 6 - 4 \div 2 =$ .....

(a) 3 (b) 7 (c) 16 (d) 20

14. If $5x = 15$, then $2^x =$ .....

(a) 2 (b) 8 (c) 3 (d) 9

15. If $x + 9 = 11$, then $7x =$ .....

(a) 2 (b) 9 (c) 11 (d) 14

16. $9 + 4 \times 3^2 =$ .....

(a) 45 (b) 117 (c) 24 (d) 33

Complete:

17. If $7 - 2x = 3$, then $x =$ ..... where $x \in \mathbb{Q}$

18. If $3x + 1 \geq 10$, then $x \geq$ ..... where $x \in \mathbb{Q}$

19. The standard form of the number $0.7 \times 0.005 =$ .....

20. $\left(-\frac{3}{7}\right)^0 \times \left(\frac{-2}{5}\right)^2 \times \sqrt{6\frac{1}{4}}$

21. If $x + 2 = 6$, then $x =$ .....

22. $7\,(6^2 - 5 \times 6) =$ .....

23. 0.75×10^8 in the standard form is ..... × .....

24. If $3x + 1 = 16$, then the value of $4x =$ .....

25. $\sqrt{9 + 16} = 3 +$ .....

26. If $2x = 5$, then $6x - 5 =$ .....

27. The solution set of the inequality : $-x > -1$ in $\mathbb{N}$ is .....

28. If $2x = \sqrt{36}$, then $3x - 4 =$ .....

29. $\left(\frac{-3}{2}\right)^2 \times \sqrt{\frac{64}{9}} \times \left(\frac{2}{7}\right)^0$

30. If $2x + 7 = 3$, then $x =$ .....

31. The standard form of $0.000057 =$ .....

32. $\sqrt{(-8)^2 + 6^2} =$ .....

33. The multiplicative inverse of the number $-\sqrt{\frac{9}{16}} =$ .....

34. If $x + 5 = 1$, then the S.S. in $\mathbb{N}$ is .....

Choose the Correct Answer:

35. The image of the point (– 1 , 3) by translation (4 , – 2) is .....

(a) (3 , 1) (b) (3 , – 1) (c) (5 , 1) (d) (5 , – 5)

36. The image of the point (2 , – 5) by reflection in $\mathcal{X}$-axis is .....

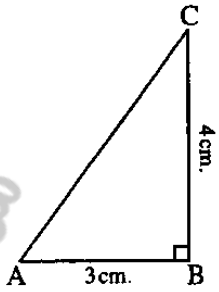
(a) (2 , – 5) (b) (2 , 5) (c) (– 2 , – 5) (d) (5 , 2)

37. The image of the point (3 , – 2) by reflection in the y-axis is the point .....

(a) (3 , 2) (b) (– 3 , – 2) (c) (– 3 , 2) (d) (– 2 , 3)

38. **In the opposite figure :**

AC = ... cm.

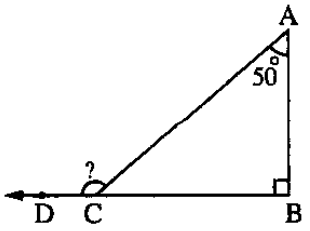


(a) 5 (b) 7

(c) 25 (d) 625

39. **In the opposite figure :**

m (∠ ACD) = ...°



(a) 40 (b) 140

(c) 90 (d) 50

40. The reflected image of the point A (– 3 , 2) in the origin point is the point

$\grave{A}$ (..... , ...)

(a) (3 , – 2) (b) (3 , 2) (c) (– 3 , – 2) (d) (2 , – 3)

41. The reflection in the $\mathcal{X}$-axis maps the point B ($\mathcal{X}$, y) to the point

$\grave{B}$ (..... , ...)

(a) ($\mathcal{X}$, y) (b) ($\mathcal{X}$, – y) (c) (– $\mathcal{X}$, – y) (d) (– $\mathcal{X}$, y)

42. The image of the point (– 1 , 3) under the translation (4 , – 2) is the point

(..... , ...)

(a) (5 , – 5) (b) (5 , 1) (c) (3 , 1) (d) (3 , – 1)

43. The image of the point (– 4 , 5) by translation (2 , – 3) is .....

(a) (2 , 2) (b) (– 2 , 2) (c) (2 , – 2) (d) (– 2 , – 2)

44. If ABC is right-angled triangle at B , AB = 20 cm. , AC = 25 cm. , then the length of BC = ... cm.

(a) 5 (b) 45 (c) 225 (d) 15

45. The line segment joining the midpoints of two sides of a triangle is ..... the third side.
(a) bisect to (b) perpendicular (c) equal to (d) parallel to

46. The image of a rhombus by any translation is a .....
(a) rhombus. (b) rectangle. (c) square. (d) trapezium.

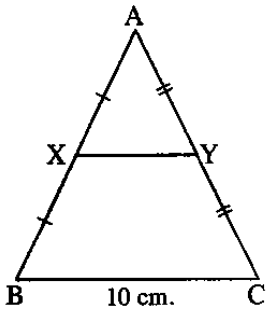
47. ABC is a triangle in which m ($\angle$ A) = 90° , then $(AC)^2 = (BC)^2$ ..... $(AB)^2$
(a) + (b) – (c) × (d) ÷

48. The image of the point (– 1 , 3) by reflection in y-axis is .....
(a) (1 , 3) (b) (3 , – 1) (c) (– 1 , – 3) (d) (1 , – 3)

49. Any triangle has at least two ..... interior angles.
(a) right (b) obtuse (c) acute (d) reflex

50. In Δ ABC if m ($\angle$ B) = 90° , AB = 6 cm. , BC = 8 cm. , then AC = ... cm.
(a) 100 (b) 8 (c) 6 (d) 10

51. **In the opposite figure :**
X , Y are midpoints of $\overline{AB}$, $\overline{AC}$ respectively , BC = 10 cm.
, then XY = ... cm.
(a) 5 (b) 20
(c) 10 (d) 30

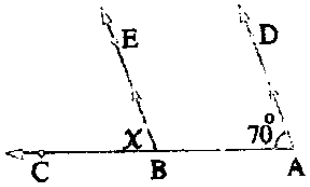


Complete:

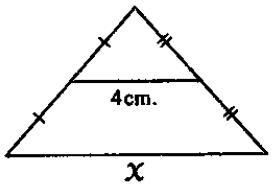
52. The image of the point (5 , 3) by translation : $(x , y) \longrightarrow (x + 3 , y - 1)$ is .....

53. The length of the line segment that joins two midpoints of two sides of a triangle equals ..... the length of the third side.

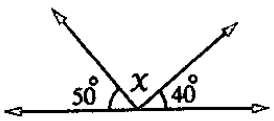
54. **In the opposite figure :**
x = ...°



55. **Find the value of x :**



x = ... cm.



x = ...°

56. In the rectangle ABCD , $(AB)^2 + (AD)^2$ = ...

Choose the Correct Answer:

1. $\sqrt{(-8)^2 + (-6)^2} =$ .....

(a) $|-10|$ (b) ± 10 (c) 14 (d) -14

2. Which of the following is the greatest ?

(a) 2.3×10^4 (b) 2.3×10^5 (c) 3.2×10^4 (d) 3.2×10^5

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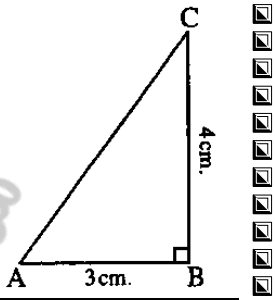

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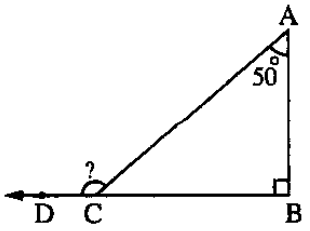

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$\grave{B}$ (..... , ...)

(a) (X , y) (b) (X , – y) (c) (– X , – y) (d) (– X , y)

42. The image of the point (– 1 , 3) under the translation (4 , – 2) is the point

(..... , ...)

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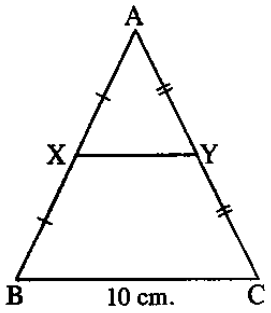
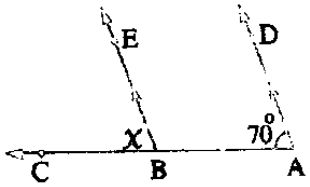


Complete:

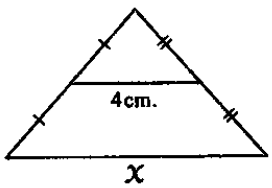
52. The image of the point (5 , 3) by translation : (x , y) ⟶ (x + 3 , y – 1) is ..... (8, 2)

53. The length of the line segment that joins two midpoints of two sides of a triangle equals ..... the length of the third side.

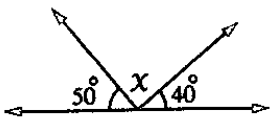
54. **In the opposite figure :**
x = ... °



55. **Find the value of x :**



x = ... cm.



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