1. If $2x-2=x+4,$ then 'x' equals _____

2. If $\frac{t}{4}=-5,$ find *t*.

3. If half times a number is 150, then find the number.

4. What is the number which when added to its half, gives 75.

5. Find the measure of each exterior angle of an equilateral triangle.

6. Case study

Ten years ago, A's age was half of B's age. If the ratio of their present ages is 3 : 4. Choose the correct option:

(a) What will be A's age?

(a) 25 years (b) 20 years (c) 15 years (d) 10 years

(b) What will be B's age?

(a) 20 years (b) 25 years (c) 15 years (d) 10 years

(c) What will be the sum of their present ages?

(a) 35 years (b) 40 years (c) 21 years (d) 42 years

7. Solve the following equation and check your solution

(a) $4x-6=\frac{10}{14}$ (b) $0.6x+8=0.4x+10$

8. Solve the following equations:

(a) $\frac{[2x-(14-16x)]}{[18x-(6+8x)]}=\frac{4}{6}$ (b) $\frac{14x-2}{8}+\frac{2}{6}\left\{24x+\left(\frac{2-2x}{4}\right)\right\}=0$

9. Divide 102 into two parts in such a way that $\left(\frac{4}{7}\right)^{th}$ of one part is equal to $\left(\frac{2}{5}\right)^{th}$ of the other.

10. What must be added to $\frac{1}{a}$ to make it equal to a?

11. Find the largest angle of a quadrilateral. If the angles of a quadrilateral are:

$x^{\circ},(x+20)^{\circ},(x+40)^{\circ}$ and $(x+60)^{\circ}$.

12. If one and a half of one third of a number is 15 less than the number, find the number.

13. When 4 is subtracted from three times a number and the result is divided by 3 more than the number, we get $\frac{2}{5}$. Find the number.

14. The perimeter of a rectangle is $150\,cm$. The length is $15\,cm$ greater than the width. Find the dimensions.

15. Each side of a triangle is increased by $10\,cm$. If the ratio of the perimeters of the new triangle and the given triangle is 5:4, find the perimeter of the given triangle.

16. The enrolment in a school this year is 552 . This is an increase of 15% over last year's enrolment. How many were enrolled last year?

17. A fruit seller buys some oranges at the rate of ₹ 5 per orange. He also buys an equal number of bananas at the rate of ₹ 2 per banana. He makes a profit of 20% on oranges and a profit of 15% on bananas. In the end, he sold all the fruits. If he earned a profit of ₹ 390 , find the number of oranges.