

Q1 Solve the following equations:-

(i) $\frac{x}{5} = \frac{1}{5}$

(ii) $6x = x + 20$

(iii) $3(x+2) = 9$

(iv) $x + \frac{3}{2} = 5$

(v) $-2x - 3 = 5$

(vi) $0.3x + 5 = 6.2$

(vii) $12 - x = 6$

(viii) $\frac{5y-4}{3} = 7$

(ix) $\frac{p}{2} + 7 = 13$

(x) $5x + 3 - 2x = 15$

(xi) $3x - 7 = 2x$

(xii) $2x + 3 = 13$

Q2 Write each of the following statements as an equation

(i) Thirty less than twelve times a number gives eighteen

(ii) Three less than three times the no. equal to seven.

(iii) Twice a no. increased by 7 is equal to 19

(iv) A no. exceeds seven by three

(v) Six times a no. is equal to 48

(vi) Five more than one third of a no. is equal to 9

(vii) A no. is divided by three. The quotient is added to four & the result is six

Q3. Fill in the blanks:-

(i) Six added to the product of 3 and x is _____

(ii) $15 - x = 4$ then $x =$ _____

(iii) If present age of Ritesh is x years, after five year his age will be _____ years

(iv) The length of a rectangle is 9 cm and its breadth is y cm. Its perimeter is _____

(v) Eight taken away from the sum of x and y is _____

(vi) a times b is added to 4 times c _____

Q4. Write algebraic equation & then solve it:-

(i) Three times a no. is increased by 5 gives 20.

Find the no.

(ii) The length of a rectangle is 3 cm more than its breadth and its perimeter is 34 cm. Find the length and breadth of the rectangle. (2)

(iii) Priyanka thought of a no. She doubled it and then added 6. The answer was 24. Which no. did she think of?

(iv) A father's age is three times his son's age. Sum of their age is 48. Find their ages.

(v) Four times a no. decreased by thrice the same no. gives 17. Find the number.

Q5. Verify by substitution that

(i) The root of $x - 6 = -5$ is 1

(ii) " " " $2x + 3 = 15$ is 6

(iii) " " " $4x - 1 = 11$ is 3

(iv) " " " $\frac{x}{3} + 8 = 12$ is 12

Q6 Change the following statement using expression into statements in ordinary language:-

(i) Tinu has q pencils in his geometry box. He has $10q$ pencils in his cupboard.

(ii) A pizza costs ₹ x whereas cost of 1 litre coke is $\frac{x}{2}$

(iii) Jannat has y flower pots in her garden. She has $(15y - 3)$ flower pots on her terrace.

Q7 (i) Lalita is ' x ' years old. Can you guess what $(x - 3)$ years might show?

(ii) There are ' n ' mangoes in a fruit basket. What may $\frac{n}{2}$, $n - 7$ show?

x — x — x — x

ANSWERS

Q1 (i) $x = 1$ (ii) $x = 4$ (iii) $x = 1$ (iv) $\frac{7}{2}$ (v) -4
(vi) $x = 4$ (vii) $x = 6$ (viii) $y = 5$ (ix) $P = 12$
(x) $x = 4$ (xi) $x = 7$ (xii) $x = 5$

Q2 (i) $12x - 30 = 18$ (ii) $3x - 3 = 7$ (iii) $2x + 7 = 9$
(iv) $x - 7 = 3$ (v) $6x = 48$ (vi) $\frac{x}{3} + 5 = 9$ (vii) $\frac{x}{3} + 4 = 6$

Q3 (i) $3x + 6$ (ii) 11 (iii) $(x + 5)$ (iv) $2(9 + y)$
(v) $(x + y) - 8$ (vi) $ab + 4c$

Q4 (i) 5 (ii) $l = 10 \text{ cm}$ $b = 7 \text{ cm}$ (iii) 9
(iv) Son's age = 12 (v) 17
father's age = 36

Q5 (i) yes (ii) yes (iii) yes (iv) yes

Q6 (i) Timu has 10 times pencils in his cupboard
(ii) cost of 1 l coke is half the cost of a pizza
(iii) Flower pots on terrace are 3 less than 15 times
the pots in the garden

Q7 (i) $x - 3 \rightarrow$ Lalita's age before 3 years
(ii) $\frac{n}{2} \rightarrow$ Half ~~is~~ ^{the} of mangoes eaten.

$n - 7 \rightarrow$ 7 mangoes taken out from the basket