Linear Equations in One Variable Ex 9.4 Q6

Answer :

Let the units digit be x.

$\because$ Sum of two digits $= 9$

$\therefore$ Tens digit $= (9 - x)$

$\therefore$ Original number $= 10 \times (9 - x) + x$

Reversed number $= 10x + (9 - x)$

According to the question,

$10 \times (9 - x) + x - 27 = 10x + (9 - x)$

or $90 - 10x + x - 27 = 10x + 9 - x$

or $9x + 9x = 90 - 27 - 9$

or $18x = 54$

or $x = \frac{54}{18} = 3$

$\therefore$ The number $= 10 \times (9 - 3) + 3 = 63$

Linear Equations in One Variable Ex 9.4 Q7

Answer :

Let the first part of 184 be x.

Therefore, the other part will be $(184 - x)$.

According to the question,

$\frac{1}{3}x - \frac{1}{7}(184 - x) = 8$

or $\frac{7x - 552 + 3x}{21} = 8$

or $10x - 552 = 168$ [After cross multiplication]

or $10x = 168 + 552$

or $x = \frac{720}{10} = 72$

Thus, the parts of 184 are 72 and 112 $(184 - 72 = 112)$.

Linear Equations in One Variable Ex 9.4 Q8

Answer :

Let the denominator of the fraction be x.

Therefore, the numerator will be $\left(x-6\right)$.

$\therefore$ Fraction $= \frac{x-6}{x}$

According to the question,

$\frac{x-6+3}{x} = \frac{2}{3}$

or $\frac{x-3}{x} = \frac{2}{3}$

or $3x-9 = 2x$ [After cross multiplication]

or $3x-2x = 9$

or $x = 9$

Thus, the original fraction $= \frac{9-6}{9} = \frac{1}{3}$

Linear Equations in One Variable Ex 9.4 Q9

Answer :

Let the number of Rs. 10 notes be x.

Therefore, the number of Rs. 20 notes will be $\left(50-x\right)$.

Value of Rs. 10 notes $= 10x$

Value of Rs. 20 notes $= 20\left(50-x\right)$

According to the question,

$10x+20\left(50-x\right) = 800$

or $10x+1000-20x = 800$

or $10x = 1000-800$

or $x = \frac{200}{10} = 20$

$\therefore$ Number of Rs. 10 notes $= 20$

Number of Rs. 20 notes $= \left(50-20\right) = 30.$

Linear Equations in One Variable Ex 9.4 Q10

Answer :

Let the number of 50 paise coins be x.

Therefore, the number of 25 paise coins will be 2x.

Value of 50 paise coins $=$ Rs. $0.5x$

Value of 25 paise coins $=$ Rs. $0.25 \times 2x$

According to the question,

$0.5x+0.25 \times 2x = 9$

or $x = 9$

$\therefore$ Number of fifty paise coins $= 9$

Number of twenty five paise coins $= 2 \times 9 = 18$

Total number of coins $= 9+18 = 27.$

********** END **********