

5 Find the value of y in the sentence
 $39 = y \times 3$

Find the value of x which makes
 $x + 3 = -5$

7 Approximate 79.75 to the nearest whole num

8 Simplify $\frac{3}{8}$ of 20

9 Simplify $13\frac{3}{4} \div 11$

10 Simplify $\frac{3}{8}$ of $2\frac{2}{9} \times 1\frac{3}{5}$

Ans

1 Total number of matches = x

Monday = $\frac{1}{4}$

Tuesday = 5 more

i How many matches has he used

ii How many has he left

① the number of matches

Used = $\frac{1}{4} + \frac{5}{1}$

$$\frac{1 + 20}{4} = \frac{21 - 15\frac{1}{4}}{4}$$

The number of matches left

$$= \cancel{x - \frac{1}{4}} \quad \cancel{x} = \quad x - 5\frac{1}{4}$$

$$2) 6p - 2q + 4r - 2p + 3s + 5q$$

Collect Like terms

$$\begin{aligned} & 6p - 2p + 5q - 2q + 4r + 3s \\ & = 4p + 3q + 4r + 3s \end{aligned}$$

3 How many "goals" for are in the month

Ans

This means you have to add all the "goals for" in all 4 weeks

This implies Week 1 (x) + Week 2 ($2x$) + Week 3 ($3y$) + Week 4 (y)

$$\text{therefore} \rightarrow x + 2x + 3y + y$$

$$= x + 2x + 3y + y$$

add like terms

$$= \underbrace{x + 2x} + \underbrace{3y + y}$$

$$= \underline{\underline{3x + 4y}}$$

6 How many "goals against" are in the month?

Week 1 ($2y$) + Week 2 (y) + Week 3 (y) + Week 4 (x)

therefore $2y + y + y + x$

add like terms

$$= 2y + y + y + x$$

$$= 2y + 2y + x$$

$$= \underline{\underline{4y + x}}$$

12 Find the value of the following when $z=11$

a $z + z = 11 + 11 = 22$

b $9 + (z + 2)$

$= 9 + (11 + 2)$

$= 9 + 13$

$= 22$

$= 22$

c $z - z = 11 - 11 = 0$

d $z + (5 \times z)$

$= 11 + (5 \times 11)$

$= 11 + 55$

$= 66$

$= 66$

5 $3y = y \times 3$

Divide both sides by 3

$\frac{3y}{3} = \frac{y \times 3}{3}$

$y = 13$

6 $x + 3 = -5$

move three to the other side

$x = -5 - 3 = -8$

$$(7) 79.75 = 80 \text{ (to the nearest whole number)}$$

$$8 \quad \frac{3}{8} \text{ of } 20 = \frac{3}{8} \times \frac{20^5}{1} = \frac{15}{2} = 7\frac{1}{2}$$

$$9 \quad 13\frac{3}{4} \div 11$$

$$\frac{55}{4} \div 11 = \frac{55}{4} \times \frac{1}{11} = \frac{5}{4} = 1\frac{1}{4}$$

$$10 \quad \frac{3}{8} \text{ of } 2\frac{3}{4} \times 1\frac{3}{5}$$

$$\frac{3}{8} \times \frac{20^4}{4} \times \frac{8}{5} = \frac{11}{3} = 1\frac{1}{3}$$