

Q1

cows	weight	days
↑ 14	↑ 63	↓ 18
↓ x	↑ 770	↓ 28

$$\frac{x}{14} = \frac{770}{63} \times \frac{18}{28}$$

$$x = \frac{770 \times 18 \times 14}{63 \times 28}$$

x = _____

Q2

fans	days	machines minutes
↑ 560	↑ 7	↑ 20
↓ x	↑ 12	↓ 18

$$\frac{x}{560} = \frac{12}{7} \times \frac{18}{20}$$

$$x = \frac{12 \times 18}{560 \times 20} \times 560$$

x = _____

Q3

Shirts	Price
↑ 80	↑ 2200
↓ x	↓ 30

$$\frac{x}{80} = \frac{30}{2200}$$

$$x = \frac{30}{2200} \times 80$$

x = _____

Q1 (a) Hanga spent on house rent = 20%
 Spent on domestic expenditure = 70%
 Saving = 1800
 Total income = ?

Let total income is = x

$$x \cdot \frac{7}{10} = 20\% x + 70\% x$$

$$x = 90\% x + \text{Savings}$$

$$x = \frac{90}{100} x + 1800$$

$$100x = 90x + 180000$$

$$100x - 90x = 180000$$

$$10x = 180000$$

$$x = \frac{180000}{10}$$

$$x = 18000$$

$$\frac{x}{100} = 18000$$

$$x = 18000 \times 100$$

$$x = 1800000$$

(b) $\frac{70}{100}$
 $= \frac{70}{100}$
 $= \frac{7}{10}$

(c) $= 15\% \times 600$
 $= \frac{15}{100} \times 600$
 $= 90$

Q4

$$\frac{7}{9}, \frac{1}{4}, \frac{13}{36}$$

$$4 \times 36 \times \frac{7}{9}, 9 \times 36 \times \frac{1}{4}, 36 \times \frac{13}{36}$$

$$28, 9, 13$$

$$28, 13, 9$$

largest $2 \times 2 \times 3 \times 3 = 36$

$$\Rightarrow \frac{7}{9}, \frac{13}{36}, \frac{1}{4}$$

$$\begin{array}{r} 2 \mid 9, 4, 36 \\ 2 \mid 9, 2, 18 \\ 3 \mid 9, 1, 9 \\ 3 \mid 3, 1, 3 \\ \hline 1, 1, 1 \end{array}$$

(b) Solve

$$\begin{aligned} \text{(a)} &= (7)^2 + x - (2 \times 4) \div 2 \\ &= 49 + x - 8 \div 2 \\ &= 49 + x - 4 \\ &= 49 - 4 + x \\ &= 45 + x \end{aligned}$$

$$\begin{aligned} \text{(b)} &= 9 + 3 + 3 \times 2 \\ &= 9 + 3 + 6 \\ &= 18 \end{aligned}$$

$$\text{(c)} \quad (x^2)^3 = x^6$$

$$\begin{aligned} \text{(d)} \quad x^a \cdot x^b &= x^{a+b} \\ &= \frac{x^{c-d}}{x^{a+b-(c-d)}} \\ &= x^{a+b-c+d} \end{aligned}$$

(e) Convert into meters

$$\begin{aligned} &10 \text{ cm} \qquad 1 \text{ cm} = 100 \text{ cm} \\ &= \frac{10}{100} \text{ m} \\ &= \frac{1}{10} \text{ m} \\ &= 0.1 \text{ m} \end{aligned}$$

Give proper questions
Give headings like given,
required, solution, formula(if any),
and answer