

Assignment

Maryam Nisa

RWP - OB - 046

General Science & Ability

Q1 = 14 cows eat 63 kg grass in 18 days. How many cows will eat 770 kg grass in 28 days?

Grass (kg)	Days	Cow
63	18	14
770	28	x

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$$\frac{x}{14} = \frac{110}{21} \times \frac{18^6}{28^4}$$

$$x = \frac{110 \times 6^2}{21 \times 4} \times 14^2$$

$$x = 110 \text{ cows}$$

write the final answer in the form of statement.

Q2 = A factory manufactures 560 fans in 7 days with 20 machines. How many fans would be manufactured in 12 days with 18 machines?

Days	Machines	Fans
7	20	560
12	18	x

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$$\frac{x}{560} = \frac{12 \times 18}{7 \times 20 \times 5}$$

$$x = \frac{3 \times 18 \times 560}{17 \times 5}$$

$$x = 3 \times 18 \times 16$$

$$x = 864 \text{ fans}$$

$$\begin{array}{r} 18 \\ 4 \overline{) 16} \\ \underline{10} \\ 18 \\ \underline{18} \\ 0 \end{array}$$

$$\begin{array}{r} 288 \\ 2 \overline{) 288} \\ \underline{576} \\ 864 \end{array}$$

The Price of 80 shirts is Rs. 22000. What will be the price of 30 shirts?

Shirts	=	Price
80	↑	22000
30	↑	x

~~$$\frac{x}{22000} = \frac{30}{80}$$

$$x = \frac{3 \times 22000}{22}$$~~

$$\begin{array}{r} 1 \\ 275 \overline{) 23250} \\ \underline{2750} \\ 23250 \end{array}$$

$$x = 23250 \text{ Rs}$$

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Q4 Hamza spends 20% of his
(a) total income on house rent,
70% on domestic expenditure.
If his savings is Rs. 1800.
What will be his' total
income?

Let the total income be x .

$$\text{Expenditure on rent} = \frac{20x}{100}$$

$$\text{Domestic expenditure} = \frac{70x}{100}$$

$$\text{Saving} = 1800 \text{ Rs.}$$

$$\text{Total income} = ?$$

$$\therefore \text{Income} = \text{Expenditure} + \text{Saving.}$$

$$x = \frac{20x}{100} + \frac{70x}{100} + 1800$$

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

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

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

$$\frac{10x}{100} = 1800$$

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$x = 8000 \text{ Rs.} \rightarrow \text{Total income.}$

(b) Change 70% into fraction.

$$\begin{aligned} & 70\% \\ &= \frac{70}{100} \\ &= \frac{7}{10} \end{aligned}$$

(c) Find 15% of 600

15% of 600

$$= \frac{600}{100} \times 15$$
$$= 90$$

Q5 Which fraction is larger in

(a) the following?

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

Multiply & divide each of them by a suitable no.

$$= \frac{4 \times 7}{4 \times 9}, \frac{9 \times 1}{9 \times 4}, \frac{1 \times 13}{1 \times 36}$$
$$= \frac{28}{36}, \frac{9}{36}, \frac{13}{36}$$

The one with greatest numerator is greater i.e.

$$\frac{7}{9}$$

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(b) Solve.

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

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

$$\begin{aligned} \text{(iii)} \quad & (x^2)^3 \\ & = x^6 \end{aligned}$$

$$\begin{aligned} \text{(iv)} \quad & x^a \cdot x^b \\ & = x^{a+b} \end{aligned}$$

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

good !!

(vi) Convert into meter.

$$\begin{aligned} & 10 \text{ cm} \\ & = 10 \times 10^{-2} \text{ m} \quad \because 1 \text{ cm} = 10^{-2} \text{ m.} \\ & = \frac{10}{10^2} \text{ m} \\ & = \frac{10}{100} \text{ m} = 0.1 \text{ m.} \end{aligned}$$