

Question 1:-

14 cows eat 63 kg grass in 18 days.

How many cows will eat 770 kg of grass in 28 days.

Solution:-

Grass(kg)	days	No. of cows
63 ↑	18 ↓	14 ↑
770 ↓	28 ↓	x ↑

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

$$x = \frac{13860}{1764} \times 14$$

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

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give the final answer in the form of statement.

Question No: 2

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

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Days	No. of machines	Fans
7 ↑	20 ↑	560 ↑
12 ↑	18 ↑	x ↑

$$\frac{x}{560} = \frac{12^3}{7} \times \frac{18}{20^5}$$

$$\frac{x}{560} = \frac{54}{35}$$

$$x = \frac{54}{35} \times 560$$

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

Question 3:-

The price of 80 shirts is Rs. 22000.

What will be the price of 30 shirts.

Shirts : Price

$$80 : 22000 :: 30 : x$$

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

$$80x = 22000 \times 30$$

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

$$x = \text{Rs } 8250$$

Question No. 4

a) Hamza spends 20% of his total income on house rent, 70% on domestic expenditure. If his savings is Rs. 18000, what will be his total income?

We know,

$$\text{Income} = \text{Expenditures} + \text{Savings}$$

$$\text{Let, total income} = x.$$

$$x - \text{expenditures} = \text{Savings.}$$

$$x - \left(\frac{20}{100}x + \frac{70}{100}x \right) = 18000.$$

$$x - \left(\frac{90x}{100} \right) = 18000$$

$$\frac{100x - 90x}{100} = 18000$$

$$\frac{10x}{100} = 18000$$

$$x = \frac{18000 \times 100}{10}$$

$$\boxed{x = 180000}$$

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b) Change 70% into fraction

$$70\% = \frac{70}{100}$$

c) Find 15% of 600.

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

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Which fraction is larger $\frac{7}{9}$, $\frac{1}{4}$, $\frac{13}{36}$

a)

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

$$\frac{28}{36}, \frac{9}{36}, \frac{13}{36}$$

So, $\frac{7}{9}$ is largest fraction.

b)

$$x^a \cdot x^b = ?$$

$$x^a \cdot x^b = x^{a+b}$$

c)

$$(x^2)^3 = ?$$

$$(x^2)^3 = x^{2 \times 3} = x^6$$

$$a) \quad 9 + 3 + 3 \times 2 = ?$$

$$= 9 + 3 + 6$$

$$= 18$$