

Assignment: 1:-

Question: 1:-

① 14 cows eat, 63 kg grass in 18 days.

How many cows will eat 770 kg grass in 28 days?

Solution:

Grass kg	Cows	days
63	14	18
770	x	28

$$x : 14 :: \begin{bmatrix} 18 & 28 \\ 770 & 63 \end{bmatrix}$$

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

$$x = \frac{18 \times 770 \times 14}{28 \times 63} = 110$$

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

Question: 2:-

The price of 80 shirts is Rs. 22000

What will be price of 30 shirts?

Solution:-

$$\text{Price of 80 shirts} = 22000$$

$$\text{Price of 1 shirt} = \frac{22000}{80} = 275$$

$$\text{Price of 30 shirts} = 275 \times 30$$

$$= \boxed{825}$$

$$\begin{array}{r} 275 \\ 8 \overline{) 2200} \\ \underline{16} \\ 60 \\ \underline{56} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

Q.4:-

- i) Hamza spent 20% of his income on house rent, 70% on domestic expenditure. If his saving is 1800. What will be total income.

$$\begin{array}{r} 275 \\ 8 \overline{) 2200} \\ \underline{16} \\ 60 \\ \underline{56} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

Solution:-

Let total income ~~is~~ x .

$$\text{House rent} = 20\% (x)$$

$$= \frac{20}{100} (x)$$

$$\text{domestic expenditure} = 70\% (x)$$

$$= \frac{70}{100} (x)$$

$$\text{domestic expenditure} + \text{House rent} + \text{saving} = 100\% (x)$$

$$70\% (x) + 20\% (x) + 1800 = 100\% (x)$$

$$90\% (x) + 1800 = 100\% (x)$$

$$1800 = 10\% (x)$$

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

$$18000 = x$$

\Rightarrow Hamza's income is 18000.

ii) Change into fraction 70%

$$70\% = \frac{70}{100} = \frac{7}{10}$$

iii) Find 15% of 600.

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

Question 5:-

(i) Which fraction is larger in following?

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

$$\frac{4}{4} \left(\frac{7}{4} \right), \frac{9}{9} \left(\frac{1}{4} \right), \frac{13}{36}$$

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

So $\frac{28}{36}$ is larger.

ii) Solve

a) $(7)^2 + x - (2 \times 4) \div 2$

$$49 + x - (8) \div 2$$

DMAS

$$49 + x - 4 = 45 + x$$

b) $9 + 3 + 3 \times 2$

$$9 + 3 + 6 = 18$$

c) $(x^2)^3 = x^6$

f) convert into meter: 10cm

$$10\text{cm} = 10 \times 10^{-2}\text{m}$$

$$= 0.1\text{m}$$

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

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

e) $\frac{x^{a+b}}{x^{c-d}}$

$$= x^{(a+b) - (c-d)}$$

$$= x^{a+b-c+d}$$

$$= x^{a+b+d-c}$$

Question: 2:-

A food factory manufactures ^① 560 fans in ^② 7 days with ^③ 20 machines. How many fans would be manufactured in 12 days with 18 machines.

Solution:-

<u>days</u>	<u>machines</u>	<u>fans</u>
7	20	560
12	18	x

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

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

$$= \frac{18 \times 12 \times 4}{1} = \frac{864}{1} = 864$$

⑥ 4