Assignment

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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	

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

$$x = \frac{110 \times 6^{2}}{21 \times 4_{1}} \times 14^{2}$$

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

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	

Date: 3

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

$$x = \frac{3 \times 18}{1} \times \frac{560}{7 \times 5}$$

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

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

18 × 16 = 108, 108 × 2 = 288, 288 × 3 = 864

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

Shirts		Price
80	↑	22000
30		x

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

$$x = \frac{3}{8} \times 22000$$

2750 × 3 = 8250

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

Date:

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

Let the total income be x.

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

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

Saving $= 1800$ Rs.

Total income $= ?$

$\because$ Income = Expenditure + Saving.

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

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

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

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

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

Date:

$x = 18000$ Rs. → Total income.

(b) Change 70 % into fraction.

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

$$= \frac{7}{10}$$

(C) Find 15 % of 600

15 % of 600

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

$$= 90$$

Q5 (a) Which fraction is larger in 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 greater numerator is greater i-e $\frac{7}{9}$.

Date: _____

(b) Solve.

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

$= 49 + x - 8 \div 2$

$= 49 + x - 4$

$= 45 + x$

(ii) $9 + 3 + 3 \times 2$

$= 9 + 3 + 6$

$= 18$

(iii) $(x^2)^3$

$= x^6$

(iv) $x^a \cdot x^b$

$= x^{a+b}$

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

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

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

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

(vi) Convert into meter.

10 cm

$= 10 \times 10^{-2}$ m $\quad \because 1\text{cm} = 10^{-2}$ m.

$= \frac{10}{10^2}$ m

$10 \overline{)10^{1}_{0}}$

$= \frac{10}{100}$ m $= 0.1$ m.