Q.06 part (d)

A man left his property Rs: 640000. A debt of Rs: 40,000 was due to him and Rs: 5,000 was spent on his burial. Distribute the amount b/w his widow, one daughter and two sons according to Islamic Law.

Solution:

Total = 640,000
debt = 40,000
Money spent on his burial = 5000

Rest of money is to be distributed b/w his widow, one daughter and two sons: 595,000-
$$640,000 - 40000 = 600,000 - 5000 = 595,000$$

Share of widow = $\frac{1}{8}$ (595,000) = 74375.

Remaing Amount = 595,000 - 74375 = 520,625

Now Share of 2 Sons & 1 daughter:
$$2 + 2 + 1 = 5$$

Share of daughter = $\frac{1}{5}$ × 520,625 = $\boxed{104,125}$

Share of Sons = $\frac{4}{5}$ × 520,625 = $\boxed{416500}$

Share of each Son = $\frac{416500}{2}$ = $\boxed{2,08,250}$

CSS:18 Q:6 part(a)

It takes 3 liters of paint to cover an area of 24 square meters. What percentage increase in the quantity of paint would be required to cover an area of 50.4 square meters

Solution:

Paint	Area
↑ 3	↑ 24 sq·m
↓ x	↓ 50.4 sq·m

$$\frac{x}{3} \times \frac{\overset{2\cdot1}{\cancel{50.4}}}{\underset{1}{\cancel{24}}}$$

$$x = 3 \times 2.1$$

$$\boxed{x = 6.3}$$

% Inc = 6.3 − 3 = 3.3

Percentage Increase = $\dfrac{Inc}{original} \times 100$

$$= \frac{\overset{1\cdot1}{\cancel{3.3}}}{\cancel{3}} \times 100$$

$$= 1.1 \times 100$$

$$\boxed{Percentage\ Inc = 110\%}$$

Question 1: 14 cows eat 63 kg grass in 18 days. How many cows will eat 770 kg grass in 28 days.

Solution:

cows	Grass	days
↑14	↑63	↑18
x	770	28

$$\frac{x}{14} = \frac{\overset{55}{\cancel{770}}}{\underset{9}{\cancel{63}}} \times \frac{\overset{7}{\cancel{28}}}{\underset{9}{\cancel{18}}}$$

$$x = 14 \times \frac{55}{7}$$

$$\boxed{x = 110}$$

⟹ 110 cows will eat 770 kg of grass in 28 days.

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

Solution:

Fans	days	machines
↑560	↑7	↓20
x	12	↓18

$$\frac{x}{560} = \frac{\overset{5}{\cancel{20}}}{\underset{9_3}{\cancel{18}}} \times \frac{\overset{2}{\cancel{12}}}{7} = \frac{21}{10}$$

$$x = \frac{560 \times 21}{10}$$

$$\boxed{x = 1176}$$

Question:3

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

Solution:

1. By definition of Ratio:

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

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

$$80x = 22000 \times 30$$

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

$$\boxed{x = 8250}$$

Question:4 a) Hamza spends 20% of his total income on house rent, 70% on domestic expenditure. If his savings is Rs: 1800 what will be his total income?

b) change into fractions 70%

c) find 15% of 600.

Solution:

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

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

Savings: 1800   Total Income?

Saving = Income - Exp

$$1800 = 1x - 0.9$$

$$1800 = 0.1$$

$$1800 = \frac{1}{10}$$

$$1800 \times 10$$

$$\boxed{18000}$$

Saving = Income - Expenditure

$$1800 = 1x - \frac{20+70}{100} = \frac{90}{100} = \frac{9}{10} = 0.9$$

b) Chang into fractions 70%

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

c) Find 15% of 600

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

Q: The cost of 16 packets of salt, each weighting 900 grams is 84 dollars. What will be the cost of 27 packets of salt each weighting 1 kg?

Solution:

Packets of Salt	Weighting	
↑ 16	↑ 900 gram	↑ 84
27	1000 gram	n

$$\frac{n}{84} = \frac{\overset{5}{\cancel{1000}}}{\underset{1}{\cancel{900}}} \times \frac{\overset{3}{\cancel{27}}}{\underset{8}{\cancel{16}}}$$

$$n = \frac{\overset{21}{\cancel{84}} \times 15}{\underset{\cancel{9}}{\cancel{8}}} = \frac{21 \times 15}{2}$$

$$n = \frac{315}{2}$$

$$\boxed{n = 157.5}$$

Q: If 270 kg of corn would feed 42 horses for 21 days, for how many days would 360 kg of it feed 21 horses.

Solution:

Corn	Horses	days
↑ 270 kg	↓ 42	↑ 21
360 kg	↓ 21	x

$$\frac{x}{21} = \frac{\overset{4}{\cancel{360}}}{\underset{3}{\cancel{270}}} \times \frac{\overset{2}{\cancel{42}}}{\underset{1}{\cancel{21}}}$$

$$x = \overset{7}{\cancel{21}} \times \frac{8}{\cancel{3}_1} = 56$$

$$\boxed{x = 56}$$

CSS:19 Q.7(d): In a certain code, computer is writt
as RFUVQNPC; How will MEDICINE
be written in code language?

COMPUTER ⟶ RFUVQNPC
MEDICINE ⟶ EOJDJEFM.

CSS:22 Q.8(d):

If in a certain language, BROTH
is written as QDCGSNQA, then in the same
language, SISTER would be written as —?

BROTHER ⟶ QDCGSNQA

SISTER ⟶ QDSRHR