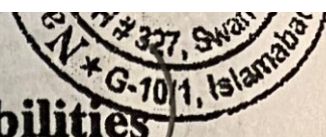LMS

Assignment: General science & abilities

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

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

Question 3: The price of 80 shirts is Rs.22000. What will be price of 30 shirts?

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.

Question 4: a) which fraction is larger in the following?

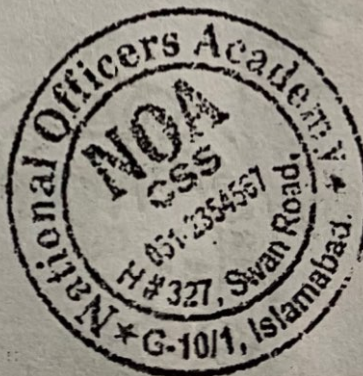$$\frac{7}{9}, \frac{1}{4}, \frac{13}{36}$$

b) Solve:

a) $(7)^2 + x - (2 \times 4) \div 2$
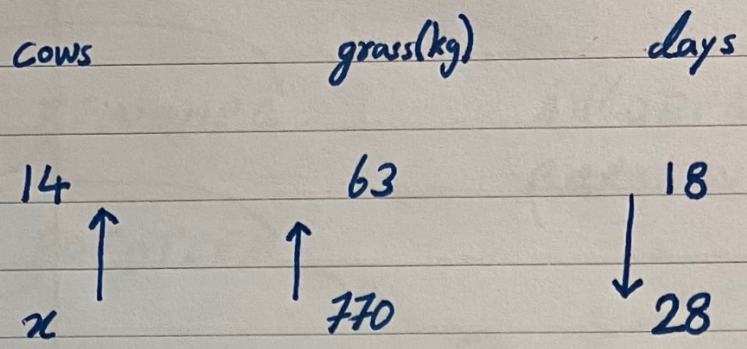b) $9 + 3 + 3 \times 2$
c) $(x^2)^3 = ?$
d) $x^a . x^b = ?$, $\frac{x^{a+b}}{x^{c-d}} = ?$
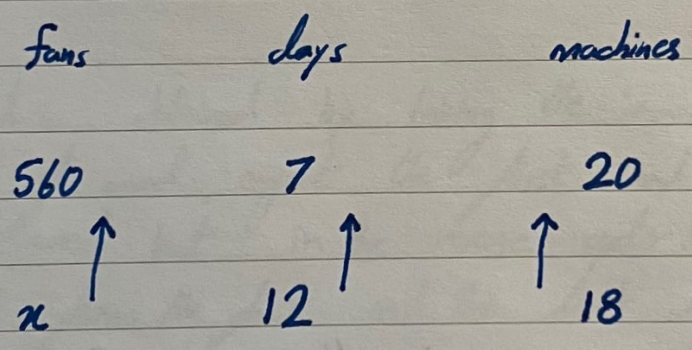e) *convet into meter:* **10 cm**

Question :1

cows	grass(kg)	days
14	63	18
↑	↑	↓
x	770	28

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

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

$$\frac{21}{63}$$

$$7\overline{)770}$$

Question : 2

fans	days	machines
560	7	20
↑	↑	↑
x	12	18

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

$$x = \frac{54}{7} \times 112$$

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

$$16$$
$$7\overline{)112}$$
$$5\overline{)560}$$

$$\begin{array}{r}54\\+16\\\hline 324\\\hline 54\times\\864\end{array}$$

Question 3

| 80 shirts | 22000 Rs |
| 30 shirts | x |

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

$$x = \frac{3 \times 22000}{8 \times 1} \quad \overset{\text{5500}}{\cancel{1000}}$$

$$x = 2750 \text{ Rs. for } 30 \text{ shirts.}$$

Question 4

Rent = 20% of income

Domestic = 70% of "

Saving = 1800

(a) Income = ?

Income = x

Income = expenditure + Saving

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

$$x = \frac{90x + 180000}{100}$$

$$100x - 90x = 180,000$$

$$10x = 180,000$$

$$x = 18000 \text{ Income}$$

and.

expenditure = Rent + Domestic

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

expenditure = $\frac{90x}{100}$

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

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

$$2\overline{\smash{)}\,11000} \quad 5500$$
$$\frac{10}{10}$$

$$2\overline{\smash{)}\,5500} \quad 2520.50$$
$$\frac{4}{15}$$
$$\frac{}{10}$$
$$\frac{}{50}$$
$$\frac{40}{10}$$
$$\frac{10}{0}$$

$$22 \cdot 25250$$
$$2$$
$$\overline{50500}$$

$$2\overline{\smash{)}\,5500} \quad 2750$$
$$\frac{4}{15}$$
$$\frac{14}{10}$$
$$\frac{10}{0}$$

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Question 5

(a)

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

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

Hence $\dfrac{7}{9}$ is the largest fraction

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

$$49 + x - 8 \div 2 =$$

$$49 + x - 4 =$$

$$49 + x = 4$$

$$x = -45$$

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

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

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

(vi) Convert in meters: 10 cm

$$\frac{10}{100} = 0.1 \text{ meters.}$$