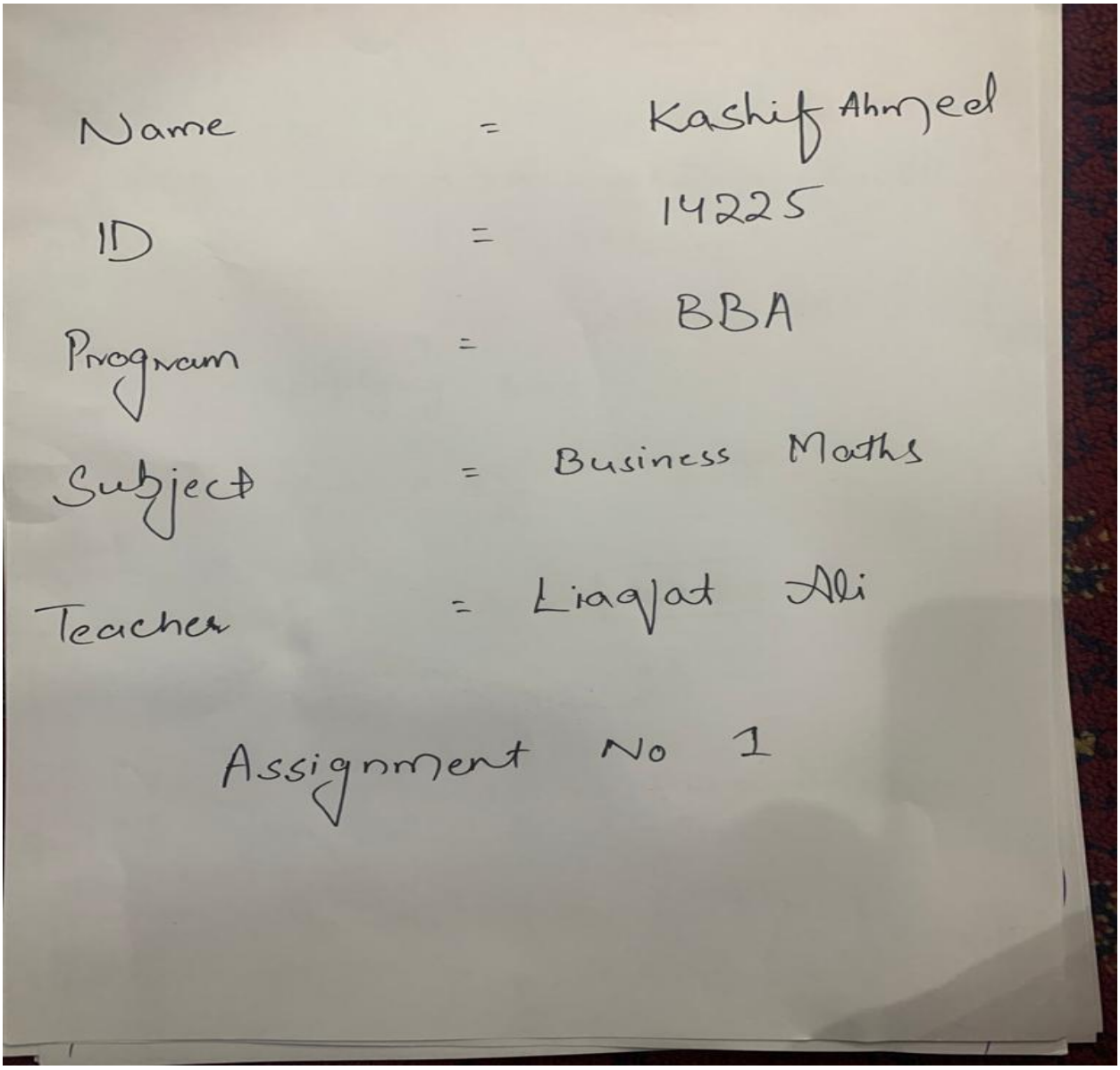
Assignment (1) and Assignment (2)

Submitted to: SIR LIAQAT ALI



Increased number $= x + 25\%\ x = 85$

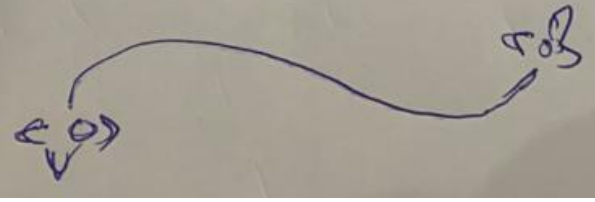
$= x + \frac{25}{100} x = 85$

$= x + \frac{x}{4} = 85$

Multiplying bHS

$\frac{2}{4} \times \frac{2x}{4} = 85 \times \frac{2}{4}$

$x = \boxed{42.5}$



(2) Ans

Total cost 1080

Total portion 4

$\frac{1080}{4} = 270$

Meat $270 \times 3 = 810$

Light $270 \times 1 = 270$

(3) Ans

Total bones 540

Ratio 7:4:2:5

$\frac{540 \times 7}{18} = 210$

$\frac{540 \times 4}{18} = 120$

$\frac{540 \times 2}{18} = 60$

$\frac{540 \times 5}{18} = 150$

Let sons age is x years

Father is 4 times older than son names father age will 4x

In 2x years he will be twice as old as his son. After 2x years their age will be:

son age = x + 24

Fathers age = 4x + 24

solving the equation

$4x + 24 = 2x + 48$

$4x - 2x = 48 - 24$

$2x = 24$

$x = 12$

The son present age 12 years

Fathers age is $4x = 4 \times 12 = 48$ years

Ans

Let girl be x and boy be y

$x + y = 26$

$x = 26 - y$

3 years ago

boy was $y-3$

girl was $x-3$

since girl was 4 times age

age of girl.

$x-3 = 4(y-3)$

$y-3 = 4y-12$

since $x = 26-y$

$(26-y)-3 = 4y-12$

$23+12 = 4y+y$

$35 = 5y$

$y = 7$

$x = 26-7$

$x = 19$

Hence girl is 19 years and boy is 17 years.

Ans (6)

Say the numbers are x and y

we know that

$x+y = 84$

and

$x = 12+y$

So then replace the x in the first line with its equalent $(12+y)$ from the second line and solve for y.

$(12+y)+y=84$

$12+2y = 84$

$6+y = 42$

$y = 42-6 = 36$

So $y = 36$, and $x = 12+y = 12+36 = 48$

The two numbers are 36 and 48

(7) Ans

Net cost $150 \times 80\% = 120$

OR

$150 \times 20\% = 30$

$150 - 30 = 120$

(8) Ans

complement of 20% OR 0.2 is 08

complement of 10% OR 0.1 is 0.9

$150 (0.8 \times 0.9)$

$150 \times 0.72 = 108$

(9) Ans

Selling Price $= 18.75$

cost $= 15$

M.up based on cost $= 3.75$

Percentage mark up based on cost

$\frac{3.75}{15} \times 100\% = 25\%$

Selling Price $ 3.38

cost $ 2.60

Mark up on cost = $ 0.78

Mark up percentage on cost =

$\frac{0.78}{2.6} \times 100\% = 30\%$

Cost 4.50

M. up 26 %.

(a) selling Price = $4.50 \times 126\% = 5.67$

(c) Mark up = 1.17

(b) selling price %age $\frac{1.17}{4.50} \times 100\% = 26\%$

Name = Kashif Ahmed

ID = 14225

Program = BBA

Subject = Business Maths

Teacher = Liaqat Ali

Assignment No = 2

Ans ⑥

Supose the fraction is $\frac{x}{y}$

Then $x+y = xy-3$

$x+y-xy = -3$

$x-y = -3$ —— ①

and $\frac{x-1}{y-1} = \frac{1}{2}$

$2(x-1) = y-1$

$2x-2 = y-1$

$2x-y = -1+2$

$x-y = 1$ —— ②

① - ②

$x-y = -3$

$2x-y = +1$

$-x = -4$

$x = 4$ Put in eq ①

$4-y = -3$

$-y = -3-4$

$-y = -7$

$y = 7$ Ans

Ans ③

Let 1 boy alone can finish it in x days and 1 man can finish the work in x days.

Then

1 mans 1 day work $= \frac{1}{x}$

and

1 boy 1 day work $= \frac{1}{y}$

(4m on 1 day work) + (6 boys, 1 day work) $= \frac{1}{5}$

$\Rightarrow \frac{4}{x} + \frac{6}{y} = \frac{1}{5}$

$= 4x + 6v = \frac{1}{5}$ (where $\frac{1}{x} = u$ and $\frac{1}{y} = v$)

$= 4v + 6v = \frac{1}{5}$ — ①

again

(3 mens 1 day work)(4 boy 1 day work) $= \frac{1}{7}$

$\frac{3}{x} + \frac{4}{y} = \frac{1}{7}$

$3v + 4v = \frac{1}{7}$ — ②

on multiplying (1) by 3 and 2 by 4 we get

$12v + 18v = 3/5$ — ③

and

$12v + 16v = 4/7$ — ③

sub 3 and 4 we get

$2v = (3/5 - 4/7)$

$2v = 1/35$

$v = 1/35 \times 2$

$v = 1/70$

$1/y = v$

$1/y = 1/70$

$x = 70$ days

Putting $v = 1/70$ in eqn ① we get

$4v + 6v = 1/5$

$4v = (1/5 - 6v)$

$4v = (1/5 - 6/70)$

$4v = (14 - 6/70)$

$4v = (8/70)$

$v = 8/70 \times 1/4$

$v = 1/35$

$1/x = v$

$1/x = 1/35$

$x = 35$ days

Therefore

one man alone can finish the work in 70 days and one boy alone can finish the work in 35 days.

③ Ans

Net cost $150 \times 80\% = 120$

or

$150 \times 20\% = 30$

$150 - 30 = 120$

② Ans

Complement of 20% or 0.2 is 0.8

Complement of 10% or 0.1 is 0.9

$150 (0.8 \times 0.9)$

$150 \times (0.72) = 108$

① Ans

List Price $120

$120 \times (0.8 \times 0.9)$

$120 \times (0.72) = 86.4$