

1) Em - 7c)

8. In an examination, Kavita scored 120 out of 160 in maths, 136 out of 200 in english and 108 out of 150 in science. Find her percentage score in each subject and also on the whole (aggregate)

Ans) Total marks in maths = 160
Marks secured by Kavita = 120

Maths :-

$$\frac{120}{160} \times 100 = \frac{240}{2} = 120, 80\%$$

Hence, total percentage in maths is 80%

Total marks in english = 200
Marks secured by Kavita = 136

English :-

$$\frac{136}{200} \times 100 = \frac{136}{2} = 68\%$$

Hence total marks secure in english is 68%

Total marks in science = 150
Marks secured = 108

Q. Science:-

$$\frac{108}{3} \times 100$$

$$\frac{108 \times 2}{3}$$

$$\frac{72}{216} = 72\%$$

$$\rightarrow \text{Total marks secured} = 120 + 136 + 108 = 364$$

$$\rightarrow \text{Total marks} = 150 + 200 + 150$$

$$= 500$$

$$\therefore \text{Overall \%} = \frac{364}{500} \times 100 = \frac{364}{5} = 72.8\%$$

Let age of B = 100 years

$$\text{Age of A} = 100 + 100 \times \frac{25}{100} = 125 \text{ years}$$

Difference between A and B = $125 - 100 = 25$ years

% by which B is younger than A.

$$\frac{25}{125} \times 100 = 20\%$$

i) $\text{New value} = 180 + \frac{180 \times 25}{100}$
 ~~$= 18$~~

$$= 180 + 45 = 225$$

ii) Decrease 140 by 18%.

$$\text{New value} = 140 - \frac{140 \times 18}{100}$$

$$= 140 - \frac{14 \times 18}{10} = 140 - \frac{126}{5}$$

$$= 140 - 25.2 = 114.8$$

~~$= 140 - 25 = 115$~~