Q3. X and Y are partners sharing profits in 5:3 ratio admitted Z for 1/10 share which he acquired equally for X and Y. Calculate new profit sharing ratio?
Solution.

$$\text{Old Ratio} = \begin{matrix} A: & B \\ 5: & 3 \end{matrix}$$

$$= \frac{5}{8} : \frac{3}{8}$$

$$Z \text{ admits for } \frac{1}{10} \text{ share in the new firm}$$

$$X \text{ and } Y \text{ each sacrifice} = \frac{1}{10} \times \frac{1}{2} = \frac{1}{20}$$

New Ratio = Old Ratio - Sacrificing Ratio

$$X's = \frac{5}{8} - \frac{1}{20} = \frac{25-2}{40} = \frac{23}{40}$$

$$Y's = \frac{3}{8} - \frac{1}{20} = \frac{15-2}{40} = \frac{13}{40}$$

$$\text{New Ratio} = \begin{matrix} A: & B & :C \\ \frac{23}{40} : & \frac{13}{40} : & \frac{1}{10} \end{matrix}$$

$$= \frac{23:13:4}{40}$$

$$= 23:13:4$$

Q4. A, B and C are partners sharing profits in 2:2:1 ratio admitted D for 1/8 share which he acquired entirely from A. Calculate new profit sharing ratio?
Solution.

| | A: | B | :C |
|---|---|---|---|
| Old Ratio= | 2: | 2: | 1 |

$$= \frac{2}{5} : \frac{2}{5} : \frac{1}{5}$$

D admits for $\frac{1}{8}$ share in the new firm, which he taken from A.

Here only A will sacrifice.

New Ratio = Old Ratio - Sacrificing Ratio

$$A = \frac{2}{5} - \frac{1}{8} = \frac{16-5}{40} = \frac{11}{40}$$

| | A: | B | :C | :D |
|---|---|---|---|---|
| New Ratio= | $\frac{11}{40}$ : | $\frac{2}{5}$ : | $\frac{1}{5}$ : | $\frac{1}{8}$ |

$$= \frac{11:16:8:5}{40}$$

$$= 11:16:8:5$$

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********** END **********