

Exercise 9.3

solution - 01:-

$$(i) 16:24 = 20:30$$

$$\Rightarrow \frac{16}{24} = \frac{20}{30}$$

$$\Rightarrow \frac{\frac{16}{4}}{\frac{24}{4}} = \frac{\frac{20}{5}}{\frac{30}{5}}$$

$$\Rightarrow \frac{4}{6} = \frac{4}{6}$$

$$\Rightarrow \frac{2}{3} = \frac{2}{3}$$

True

$$(ii) 21:6 = 35:10$$

$$\frac{\frac{21}{3}}{\frac{6}{3}} = \frac{\frac{35}{5}}{\frac{10}{5}}$$

$$\Rightarrow \frac{7}{2} = \frac{7}{2}$$

True

$$(iii) \frac{12}{18} = \frac{28}{12}$$

$$\frac{6}{9} \neq \frac{14}{6}$$

False.

mc24

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$$(iv) 51:58 = 85:102$$

$$\frac{51}{58} \neq \frac{5}{6}$$

False

$$(v) \frac{14 \text{ men}}{200 \text{ men}} = \frac{7/5}{200 \cdot 7/5} \quad (\text{or}) \quad \frac{40 \text{ men} \div 40}{200 \text{ men} \div 40} = \frac{Rs 5 \div 5}{Rs 25 \div 5}$$

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

True

$$(vi) \frac{99K9}{45K8} = \frac{RS 44}{RS 20}$$

$$\Rightarrow \frac{99}{45} = \frac{44}{20}$$

$$\Rightarrow \frac{99 \div 9}{45 \div 9} = \frac{44 \div 4}{20 \div 4}$$

$$\Rightarrow \frac{11}{5} = \frac{11}{5}$$

True.

mc24

Solution-02

(i) 8, 16, 6, 12.

we have,

$$8:16 = \frac{8}{16} = \frac{1}{2}$$

$$\text{and } \frac{6}{12} = \frac{1}{2}$$

$$\therefore \frac{8}{16} = \frac{6}{12}$$

Hence 8, 16, 6, 12 are in proportion.

(ii) 6, 2, 4, 3

we have,

$$\frac{6}{2} = \frac{3}{1}$$

$$\text{and } \frac{4}{3} = \frac{4}{3}$$

$$\therefore \frac{3}{1} \neq \frac{4}{3}$$

Hence, 6, 2, 4, 3 are not in proportion

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(iii) 150, 250, 200, 300.

we have,

$$\frac{150}{250} = \frac{3}{5} \text{ and } \frac{200}{300} = \frac{4}{6} = \frac{2}{3}$$

∴ Hence 150, 250, 200, 300 are not
in proportion.



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