

$$\textcircled{1} \textcircled{a} \textcircled{i}) 4:6 = \frac{4}{6} = \frac{2}{3} = 2:3$$

$$\textcircled{ii}) 48:54 = \frac{48}{54} = \frac{8}{9} = 8:9$$

$$\textcircled{iii}) 200:250 = \frac{200}{250} = \frac{4}{5} = 4:5$$

$$\textcircled{b} \textcircled{i}) 5 \text{ kg} : 800 \text{ gm} = \frac{5000}{800} = \frac{25}{4} = 25:4$$

$$\textcircled{ii}) 30 \text{ cm} : 2 \text{ m} = \frac{30}{200} = \frac{3}{20} = 3:20$$

$$\textcircled{iii}) 3 \text{ m} : 90 \text{ cm} = \frac{300}{90} = \frac{10}{3} = 10:3$$

$$\textcircled{iv}) 2 \text{ years} : 9 \text{ months} = \frac{24}{9} = \frac{8}{3} = 8:3$$

$$\textcircled{v}) 1 \text{ hr} : 45 \text{ min} = \frac{60}{45} = \frac{4}{3} = 4:3$$

$$\textcircled{vi}) 4 \text{ min} : 45 \text{ sec} = \frac{240}{45} = \frac{16}{3} = 16:3$$

$$\textcircled{c} \textcircled{i}) 1\frac{1}{2} : 2\frac{1}{2} = \frac{3}{2} : \frac{5}{2} = \frac{3}{2} \div \frac{5}{2} = \frac{3}{2} \times \frac{2}{5} = 3:5$$

$$\textcircled{ii}) 3\frac{1}{2} : 7 = \frac{7}{2} : 7 = \frac{7}{2} : \frac{14}{2} = \frac{7}{2} \times \frac{2}{14} = 1:2$$

$$\begin{aligned} \textcircled{iii}) 2\frac{1}{3} : 3\frac{1}{2} : 1\frac{1}{4} &= \frac{7}{3} : \frac{7}{2} : \frac{5}{4} = \frac{28}{12} : \frac{42}{12} : \frac{15}{12} \\ &= \frac{28}{12} \times \frac{12}{42} : \frac{12}{42} : \frac{15}{12} = 28:42:15 \end{aligned}$$

$$\textcircled{iv}) x^2 : 4x = \frac{x \times x}{4 \times x} = x:4$$

$$\textcircled{v}) 2.5 : 1.5 = \frac{2.5}{1.5} = \frac{5}{3} = 5:3$$

(vi) $2.5:5 = \frac{2.5}{5.0} = \frac{5}{10} = \frac{1}{2} = 1:2$

(2) $\frac{60}{80} = \frac{3}{4} = 3:4$

- (3.i) False
- ii) True
- iii) True

(4) Yes, the ratio of 15 kg and 35 kg are the same as of 6 & 14 years.

(5) Yes, the ratio of 6 g and 15 g are the same as of 36 and 90 cm.

(6) $3.5m : 475cm : 2.8m$
 $= 350 : 475 : 280 = 70 : 95 : 56$

(7) $5 \text{ dozen} = 12 \times 5 = 60$
 $2 \text{ scores} = 2 \times 20 = 40$
 $= \frac{60}{40} = \frac{3}{2} = 3:2$

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