

Ratio & Proportion (Basics)

11. If $A:B = 5:7$, $B:C = 6:11$ then $A:B:C$ is ?

$$\begin{array}{l} A:B = 5:7 \quad \times 6 \\ B:C = 6:11 \quad \times 7 \end{array}$$

$$A:B = 30:42$$

$$B:C = 42:77$$

$$\underline{A:B:C = 30:42:77 \quad \checkmark}$$

$$\begin{array}{l} B=8 \\ C=14 \end{array}$$

$$\begin{array}{l} \times \quad B:C = 4:7 \\ B=4, C=7 \quad \times \checkmark \end{array}$$

$$\begin{array}{l} B:C = 4:7 \\ \times 2 \quad 8:14 \quad \checkmark \\ \times 3 \quad 12:21 \quad \checkmark \\ \quad 16:28 \quad \checkmark \end{array}$$

$$B:C = 4:7$$

$$\begin{array}{l} B:4 \times 2 = 8 \\ C:7 \times 2 = 14 \\ B:4 \times \checkmark, C:7 \times \checkmark \\ 4x + 7x = 22 \quad \checkmark \\ 11x = 22 \quad \checkmark \\ x = 2 \quad \checkmark \end{array}$$

Q3. If $2A = 3B = 4C$, then $A:B:C$ is ?

- (A) $2:4:6$ (B) $2:3:4$ (C) ~~$6:4:3$~~ (D) $4:3:2$

$2A = 3B = 4C$, $A:B:C$

$A:B:C = 2:3:4$ ✗

$$\begin{array}{r} 2 \overline{) 2, 3, 4} \\ 1, 3, 2 \\ \hline 2 \times 3 \times 2 \\ = 12 \end{array}$$

$$\frac{2A}{6} = \frac{3B}{4} = \frac{4C}{3}$$

$$\frac{A}{6} = \frac{B}{4} = \frac{C}{3}$$

$A:B:C = 6:4:3$ ✓✓

gmp

$$\frac{A}{2} = \frac{B}{3} = \frac{C}{4}$$

$$A = 2$$

$$B = 3$$

$$C = 4$$

✓✓
 $A:B:C = 2:3:4$

$$\Rightarrow 2A = 3B$$

$$\frac{A}{B} = \frac{3}{2}$$

$A:B = 3:2$