

Answer on Question #40864 – Math – Algebra

if $a:b = 1:2$ and $b:c = 3:4$ what is $a:c$?

Solution

Calculate

$$\begin{aligned} a:c &= \frac{a}{c} = \frac{a}{c} \times 1 = \frac{a}{c} \times \frac{b}{b} = \frac{ab}{cb} = \frac{ab}{bc} = \frac{a}{b} \times \frac{b}{c} = (a:b) \times (b:c) = (1:2) \times (3:4) = \\ &= \frac{1}{2} \times \frac{3}{4} = \frac{3}{8} = 3:8 \end{aligned}$$

Answer: $a:c=3:8$.