Answer on Question #52864 – Math – Trigonometry

In the diagram below, ab and ac are phasors representing the alternating currents in two branches of a circuit. The line ac represents the resultant current. Find the resultant current.

Description of the diagram:

right angled triangle labelled a, b, c

line AB has 15A and line BC has 10A

the angle is 40 degrees

Solution

$$V = \sqrt{15A^2 + 10A^2 - 2*15A*10A\cos(180^0 - 40^0)} =$$

$$= A\sqrt{225 + 100 + 300*0.766} = 23.55A .$$