

1.3.1

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Question:

If in $\triangle ABC$, $\mathbf{BA} = 2a$ and $\mathbf{BC} = 3b$,then \mathbf{AC} is _____

Solution:

$$\mathbf{CB} = -3b$$

$$\mathbf{BA} + \mathbf{CB} + \mathbf{AC} = 0$$

$$2a + (-3b) + \mathbf{AC} = 0$$

$$\implies \mathbf{AC} = 3b - 2a$$

Graphical Representation

Hence $\mathbf{AC} = 3\mathbf{b} - 2\mathbf{a}$

