1.3.1

AI25btech11022 - Narshitha

Question:

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

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

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

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

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

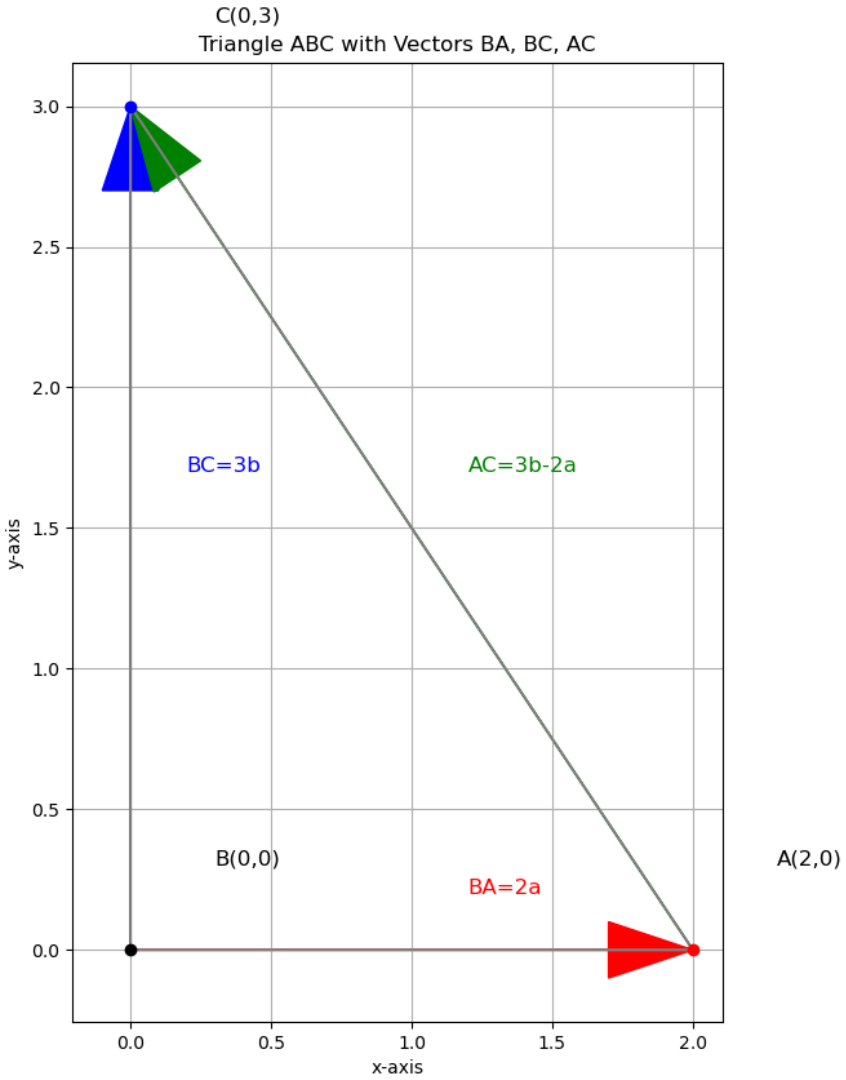
C(0,3)
Triangle ABC with Vectors BA, BC, AC
BC=3b
AC=3b-2a
B(0,0)
BA=2a
A(2,0)
y-axis
x-axis
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0.0
0.5
1.0
1.5
2.0

Fig. 0.