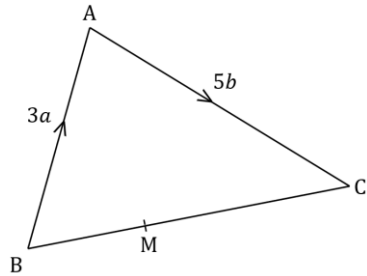


a)

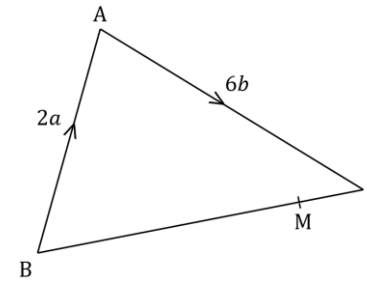


$BM:MC = 2:3$.

Write the vector \overrightarrow{AM} in its simplest form.

<p>What is the vector \overrightarrow{BC} in terms of a and b?</p>		$\overrightarrow{BC} = \overrightarrow{BA} + \overrightarrow{AC}$ $= 3a + 5b$
<p>What is the vector \overrightarrow{BM} in terms of a and b?</p>		<p>$BM:MC = 2:3$, so BC has 5 parts.</p> <p>\overrightarrow{BM} is $\frac{2}{5}$ of \overrightarrow{BC}</p> $\frac{2}{5} \text{ of } 3a + 5b = 1.2a + 2b$
<p>What is the vector \overrightarrow{AM} in terms of a and b?</p>		$\overrightarrow{AM} = \overrightarrow{AB} + \overrightarrow{BM}$ $= -3a + 1.2a + 2b$ $= -1.8a + 2b$ $= 2b - 1.8a$

b)

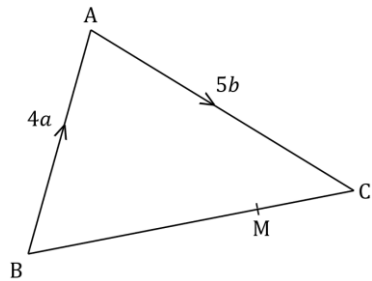


$BM:MC = 4:1$.

Write the vector \overrightarrow{AM} in its simplest form.

<p>What is the vector \overrightarrow{BC} in terms of a and b?</p>		$\overrightarrow{BC} = \overrightarrow{BA} + \overrightarrow{AC}$ $= 2a + 6b$
<p>What is the vector \overrightarrow{BM} in terms of a and b?</p>		<p>$BM:MC = 4:1$, so BC has 5 parts.</p> <p>\overrightarrow{BM} is $\frac{4}{5}$ of \overrightarrow{BC}</p> $\frac{4}{5} \text{ of } 2a + 6b = 1.6a + 4.8b$
<p>What is the vector \overrightarrow{AM} in terms of a and b?</p>		

c)

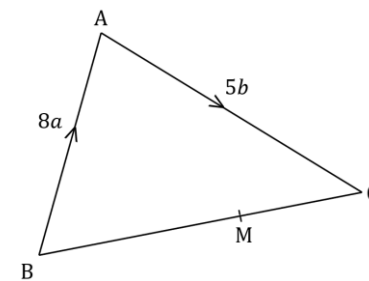


$BM:MC = 3:1$.

Write the vector \overrightarrow{AM} in its simplest form.

<p>What is the vector \overrightarrow{BC} in terms of a and b?</p>		$\overrightarrow{BC} = \overrightarrow{BA} + \overrightarrow{AC}$ $= 4a + 5b$
<p>What is the vector \overrightarrow{BM} in terms of a and b?</p>		
<p>What is the vector \overrightarrow{AM} in terms of a and b?</p>		

d)



$BM:MC = 3:2$.

Write the vector \overrightarrow{AM} in its simplest form.