

4th November

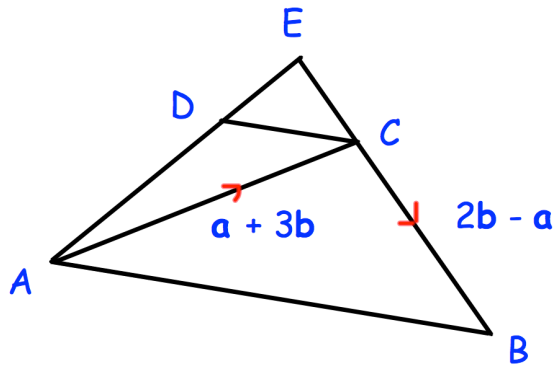


Corbettmaths

A circle has equation

$$x^2 + y^2 = \frac{1}{9}$$

Write down the length of its radius



Find the vector

$$\vec{AB}$$

Prove DC is parallel to AB

$$\vec{EC} = \frac{1}{4}\vec{CB}$$

$$\vec{DE} = \frac{1}{4}\vec{a}$$

There are  $x$  apples in a crate.  
4 of the apples are bad.

Fiona chooses two apples from the  
crate, without replacement.  
The probability she selects two bad  
apples is  $\frac{1}{11}$

Prove

$$x^2 - x - 132 = 0$$

Find  $x$ , the number of apples in the  
crate.