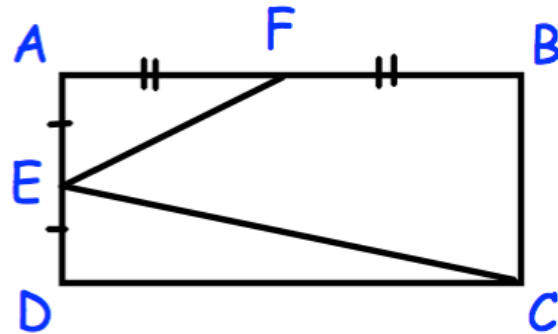


April 2nd

$$EF = \sqrt{5}$$
$$EC = \sqrt{17}$$

Find BC.



Using Pythagoras in triangle EAF and in triangle EDC

(call $AE = ED = x$ $AF = \frac{1}{2} DC = y$)

Hence:

$$x^2 + y^2 = 5$$
$$x^2 + (2y)^2 = 17$$

Subtracting the equations gives:

$$3y^2 = 12$$

Therefore

$$y = 2$$

Hence

$$x = 1$$

$$\mathbf{BC = 2x = 2cm}$$