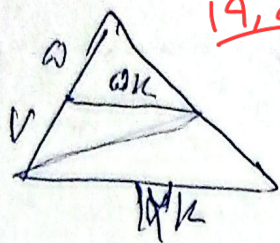


①



19, 20

$$h_1 = h_2$$

1/2

A

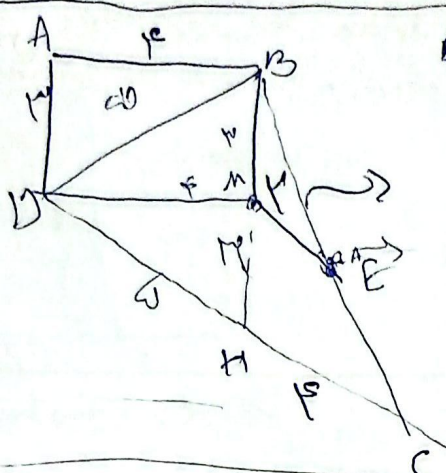
3, 4, 5

$$\begin{aligned} S_{BEC} &= \frac{1}{2} k \times h_1 \\ S_{BDC} &= \frac{1}{2} k \times h_2 \end{aligned}$$

$$\frac{\frac{1}{2} k \times h_1}{\frac{1}{2} k \times h_2} = \frac{1}{1} \checkmark$$

(2)

②



$$BDM = DMH \rightarrow \text{vertical angles}$$

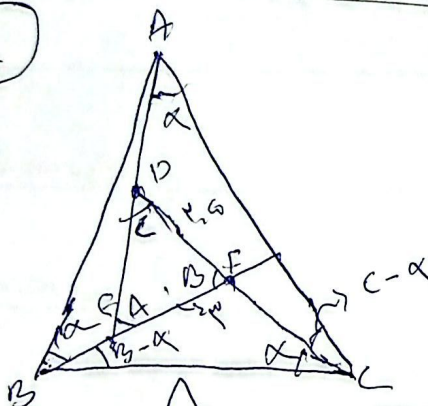
$$DH = 1 \quad HC = 1$$

$$\text{vertical angles} \Rightarrow ME \parallel HC$$

$$ME = 1 \checkmark$$

(2)

③

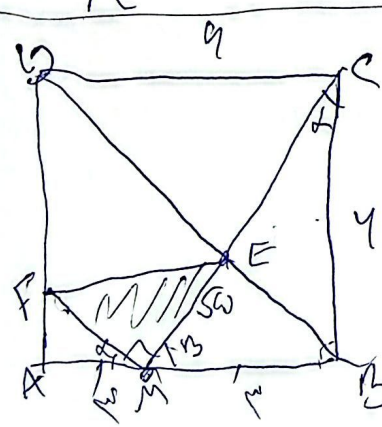


$$\frac{BC}{DF} = \frac{AB}{EF} \Rightarrow \frac{1}{1} = \frac{AB}{1}$$

$$\frac{1 \times 1 \times 1}{1} = AB \Rightarrow 1 \cdot 1 = AB \checkmark$$

(2)

④



$$MC = \sqrt{50} \quad \frac{EC}{ME} = \frac{1}{1}$$

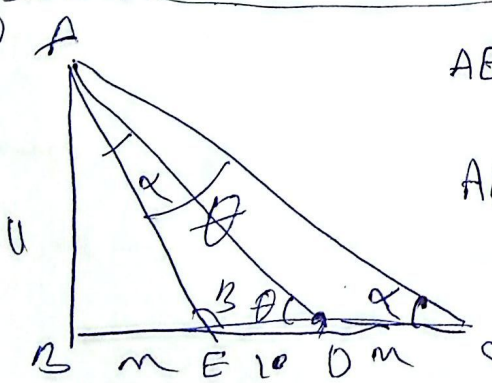
$$\Leftrightarrow \sqrt{50} \times \frac{1}{1} = BE = 50$$

$$EM = 1 \times 50$$

$$S_{FME} = \frac{1}{2} \times 1 \times 50 \times 50 = \frac{1}{2} \times \frac{1}{1} \times 50 \times 50 \checkmark$$

(2)

⑤

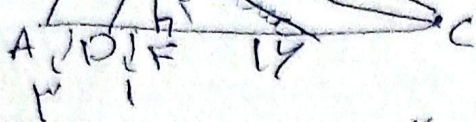


$$AEC \sim AED \quad \frac{AE}{1a} = \frac{AC}{AD} = \frac{1a+m}{AE}$$

$$\left. \begin{aligned} AE^2 &= 1a \times (1a+m) \\ AE^2 &= m^2 + 1a \end{aligned} \right\} \quad \begin{aligned} m^2 - 1a \times m + 1a &= 0 \\ m &= 1 \checkmark \end{aligned}$$

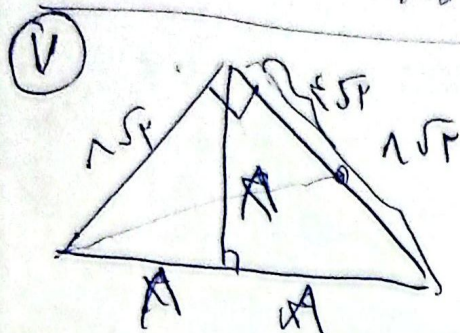
(2)

④ $EF^2 = DF \times FC = 1 \times 2 = 2 \Rightarrow FC = 2$ (2)



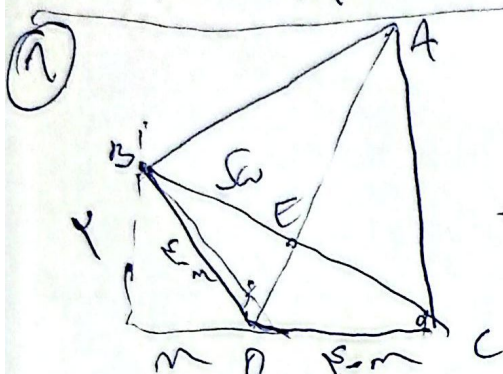
$BF^2 = 14 \times 2 \Rightarrow BF = 2 \times 2 = 4 \Rightarrow BE = 1$

$FB^2 + FC^2 = BC^2 \Rightarrow BC = 1\sqrt{5}$ ✓



$BC = \sqrt{1^2 + 2^2} = \sqrt{5}$ ✓

(2)

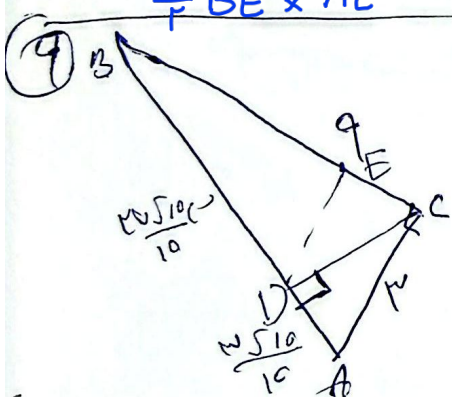


$m \times \frac{1}{2} = (1-m)^2 \Rightarrow m = \frac{1}{2}$

$BC^2 = \frac{1}{4} + \frac{1}{4} \Rightarrow BC = \frac{\sqrt{2}}{2} \Rightarrow BE = \frac{\sqrt{2}}{2}$ ✓

$\Rightarrow OE = \frac{\sqrt{2}}{2} \Rightarrow AE = \frac{\sqrt{2}}{2}$ ✓

$\frac{1}{2} \times \frac{\sqrt{2}}{2} \times \frac{\sqrt{2}}{2} = \frac{1}{2} \times BE \times AE$ (2)



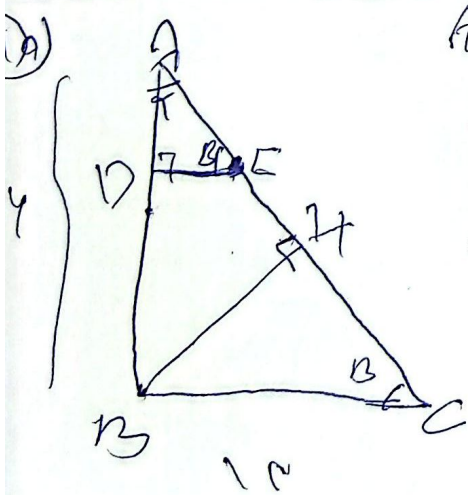
$AB = 2\sqrt{10}$

$q = AD \times 2\sqrt{10}$

$AD = \frac{2}{\sqrt{10}} = \frac{2\sqrt{10}}{10}$

$\frac{BE}{BC} = \frac{\frac{2\sqrt{10}}{10}}{\frac{2\sqrt{10}}{1}} = \frac{1}{10} = 0.1$ ✓

$BE = 0.1 \times BC = 1.1$ (2)



$AC = 20$

$AB^2 = AC \times AH$

$\Rightarrow 14 \times 14 = 20 \times AH$

$AH = \frac{14 \times 14}{20} \Rightarrow$

$AED \sim ABC$

$AE = \frac{14 \times 14}{20}$

$DE = BC \times \frac{AE}{AC}$

$\frac{14}{20} = 1.1 \times 1.1$ ✓

BC, AC, AB