

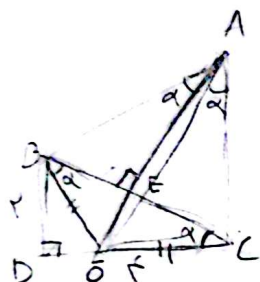
$$EF = DE \times EC \Rightarrow 19 = 1 \times EC \Rightarrow EC = 19$$

$$DF = 5 \times 19 = 95 \Rightarrow DE = 11$$

$$BC = 19 \times 10 \Rightarrow 190 \Rightarrow \boxed{BC = 190}$$



$$AB = (55)^2 + (19)^2 \Rightarrow 32 + 121 = AB = \sqrt{153} = \boxed{12.58}$$



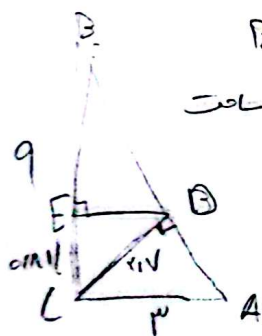
$$BC = 5 + 19 = BC = 24$$

$$BE = \frac{BC}{2} = 12$$

$$AE = 12$$

$$S = \frac{12 \times 12}{2} = 72$$

$$BD = 2 \quad 2 + DO = DF$$



$$BE = ? \quad AB = 11 + 9 = 20 \Rightarrow AB = 20$$

$$20 = 2 \times 9 = DC \times 10 \Rightarrow DC = 22$$

$$BC = CE \times 9 \Rightarrow 22 \times 9 = 9 \times CE \Rightarrow CE = 22$$

$$\Rightarrow BE = 9 - 22 \Rightarrow \boxed{13}$$

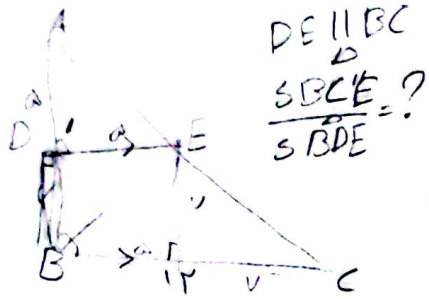
$$AC = AB + BC \Rightarrow 15 + 15 \Rightarrow \boxed{AC = 30}$$

$$ABC = BH \times AC = AB \times BC \Rightarrow BH \times 30 = 15 \times 30 \Rightarrow BH = 15$$

$$HC = BC - BH = (15) - (15) \Rightarrow \boxed{HC = 0}$$

$$HC + 2x = 30 \Rightarrow x = 15$$

$$\frac{DE}{BC} = \frac{AE}{AC} \Rightarrow \frac{DE}{15} = \frac{15}{30} \Rightarrow DE = 7.5$$



$$DE \parallel BC$$

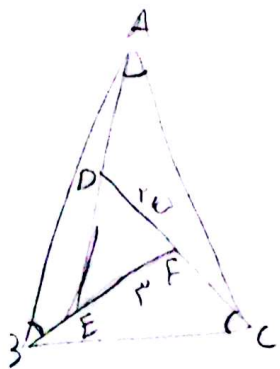
$$\frac{S_{BCE}}{S_{BDE}} = ?$$

$$\frac{AD}{AB} = \frac{DE}{BC} = \frac{12}{12} = \frac{BC}{DE} = \frac{12}{12}$$

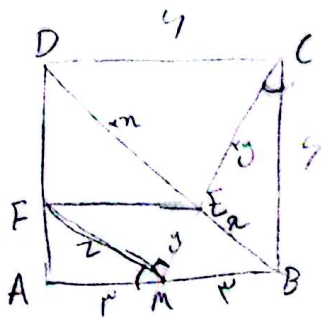
$$\frac{S_{BCE}}{S_{BDE}} = \frac{BC}{DE} = \frac{12}{12} = 1$$

(1)

(2)



(1)



$$CM^2 = 12 + 9 \Rightarrow CM = \sqrt{21} \quad ME = \frac{\sqrt{21}}{2} = \sqrt{5.25}$$

(1)

$$\frac{CB}{AM} = \frac{4}{r} = r = \frac{\sqrt{5.25}}{Z} \Rightarrow rZ = \sqrt{5.25}$$

$$\Rightarrow Z = \frac{\sqrt{5.25}}{r}$$

$$S = \frac{YZ}{r} = \frac{r \times \sqrt{5.25} \times \sqrt{5.25}}{r \times r} = \left(\frac{10}{r} \right)$$

$$DC = ?$$

(2)

