

14, 5

$$\Rightarrow \frac{EF}{r} = \frac{\sqrt{10}}{5} \times \frac{r}{r\sqrt{2}} = \frac{\sqrt{5}}{5}$$

مساحة

(2)

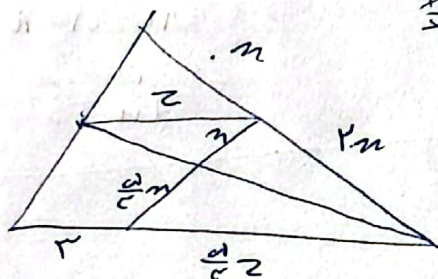
$$AF = \frac{r}{5}\sqrt{5}$$

$$F \Rightarrow EF = \sqrt{\frac{1}{14} + \frac{9}{14}} = \frac{\sqrt{10}}{5}$$

$$\frac{P}{1+m} = \frac{n}{1+n}$$

$$P = m + n \Rightarrow m + n - r = 0 \Rightarrow m = r$$

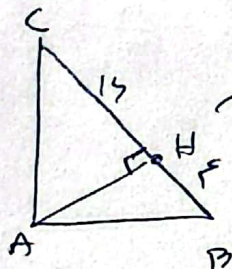
(2) -



$$\frac{14}{5} \times \frac{r}{5}$$

$$\Rightarrow \frac{2}{r + \frac{14}{5}} = \frac{1}{r} \Rightarrow r + \frac{14}{5} = 2r \Rightarrow \frac{14}{5} = r \Rightarrow r = \frac{14}{5}$$

(2, 14)



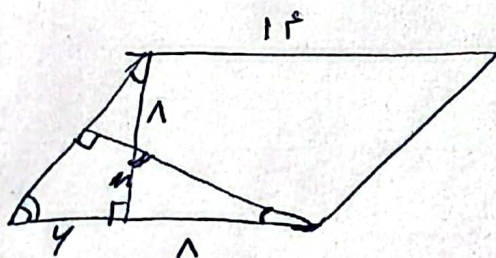
$$\sqrt{\frac{14}{5}} = r$$

مساحة

$$(AB)^2 = BH \times BC = 10$$

$$(AC)^2 = CH \times BC = 14$$

$$\frac{AB}{AC} = \frac{1}{r}$$



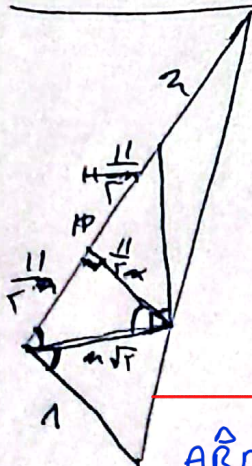
$$\frac{14}{5} = \frac{14}{1+m}$$

$$14 = 14m + 14 \Rightarrow 14m = 0 \Rightarrow m = 0$$

$$n = 5$$

$$AF = r + 1 = 12$$

(1, 14)



$$\frac{n+11}{n+11} = \frac{11}{14} \Rightarrow 11n + 121 = 14n + 11 \Rightarrow 11n = 110 \Rightarrow n = 10$$

$$m = 12$$

(2)

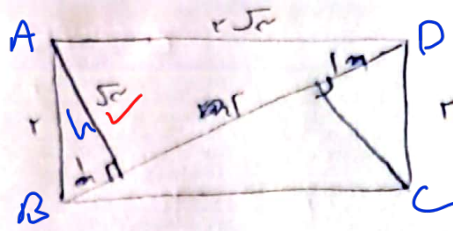
$$ABD = h^2 = n \times r \Rightarrow h = \sqrt{nr}$$

$$S_{\Delta ABD} = \frac{hn}{2} = \frac{\sqrt{nr} \times n}{2}$$

$$S_{\square} = 2S_{\Delta ABD} = 2 \times \frac{\sqrt{nr} \times n}{2} = \sqrt{nr} \times n$$

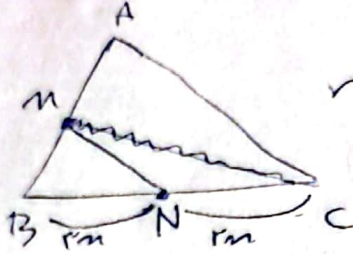
$$\frac{\sqrt{nr} \times n}{\sqrt{nr} \times n} = 1$$





$$\frac{r\sqrt{2}}{r\sqrt{2}} = 1$$

(0, 2) - 1



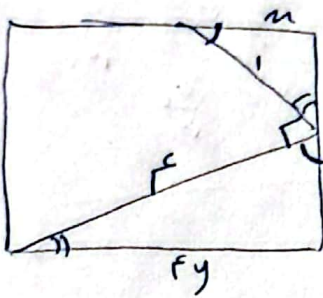
$$S_1 \approx \omega(BM + AM) = \omega BM + \omega AM$$

$$S_{BMN} \approx r_{BM}$$

$$\Rightarrow \frac{\omega BM + \omega AM}{r_{BM}} = r_{BM}$$

$$\Rightarrow \epsilon_{BM} = \omega AM$$

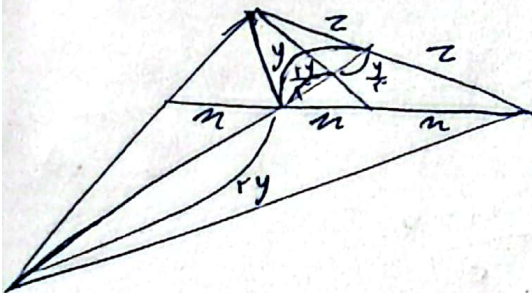
$$\Rightarrow \frac{BM}{AM} = \frac{a}{f} \checkmark$$



$$\epsilon y = y + f_m$$

$$x y = f_m$$

$$\frac{14}{9} \cdot \frac{r}{a} = 1 \Rightarrow r = \frac{a}{14} \Rightarrow a = \frac{14}{9} \times \frac{r}{a} = \frac{14}{9} \rightarrow S = \frac{r \omega y}{r \omega}$$



$$\Rightarrow \frac{r_y}{r} = \frac{r_y}{r} = 1 \checkmark$$

(2)