

نام و نام خانوادگی شماره کلاس پاسنامه تشریحی تکلیف شماره ۲۱

الرجاء افعلی راجع در نظر گرفته و افق در بر روی موازی در برابر باشند + طول ED و طول AE + طول BC + طول AB
 صر CA مربع رسم شد طولش $2\sqrt{10}$ و $AF = \frac{2\sqrt{10}}{2} = \sqrt{10}$ نسبت مشابه
 $AEF \sim BFC$ درست است $K=2$
 FE طول $FE = \sqrt{x^2 + 9x^2} = x\sqrt{10}$ و $BE = \sqrt{10}$
 $\frac{EF}{AF} = \frac{x\sqrt{10}}{\sqrt{10}} = x$
 $\frac{EF}{AF} = \frac{x\sqrt{10}}{\frac{2\sqrt{10}}{2}} = \frac{x}{1}$

$$A \hat{B} C \sim A \hat{E} F \Rightarrow \frac{AE}{AF} = \frac{AD}{AB} \Rightarrow \frac{x}{1} = \frac{2}{x+1}$$

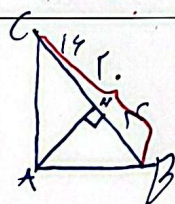
$$x + x = 2 \Rightarrow x = 1$$

$$x + x - 2 = 0 \Rightarrow (x-1)(x+2) = 0 \Rightarrow x = 1 \text{ یا } x = -2$$

$$x = 1 \rightarrow x = 1 \checkmark$$

$$x = -2 \rightarrow x = -2 \text{ رد}$$

$DEHF$ و $H_1 = H_2 \rightarrow DEH \sim FHC \rightarrow \frac{DE}{FC} = \frac{2(HF)}{FC}$
 $x = 2\sqrt{10}$ و $y = 5\sqrt{10} \rightarrow DE = 2a$ و $FC = 5a \rightarrow \frac{AE}{AC} = \frac{DE}{BC} \Rightarrow$
 $\frac{2a}{5a+2a} = \frac{2\sqrt{10}}{5\sqrt{10}+2\sqrt{10}} = \frac{2\sqrt{10}}{7\sqrt{10}} = \frac{2}{7}$
 $\frac{2a}{7a} = \frac{2}{7} \Rightarrow a = \frac{7}{2} \Rightarrow BC = 5 \times \frac{7}{2} + 2 \times \frac{7}{2} = \frac{35}{2} + 7 = \frac{49}{2}$



$$CB \times CH = AC^2 \rightarrow 14 \times 20 = AC^2 \Rightarrow AC = 14\sqrt{5}$$

$$HB \times CB = AB^2 \rightarrow 16 \times 20 = AB^2 \Rightarrow AB = 16\sqrt{5}$$

$$\frac{AB}{AC} = \frac{16\sqrt{5}}{14\sqrt{5}} = \frac{8}{7}$$

دو مثلث متشابه BAF و $ECF \rightarrow \frac{BF}{EF} = \frac{AF}{CF} \rightarrow \frac{2}{EF} = \frac{1+EF}{1} \Rightarrow EF = 2$

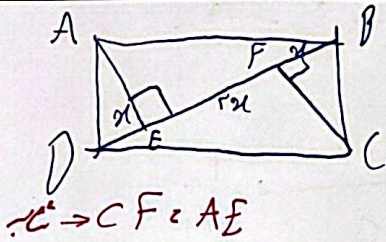
مربع $FF(EFM) = 1 \rightarrow EF = 1$ و $FF = 1$

$$\frac{DA}{DC} = \frac{11+EK}{1}$$

$$\triangle ABC \sim \triangle ADH$$

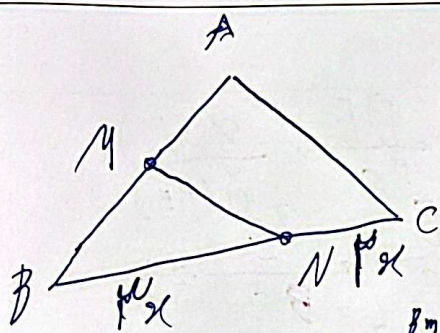
ارتفاع وارد بر BC
در مثل قائم

4,4



$$S_{ABCD} = FC \times EF \rightarrow \frac{S_{ABCD}}{S_{FBC}} = \frac{FC \times EF}{\frac{FC \times x}{r}}$$

$$S_{FBC} = \frac{x \times FC}{r}$$

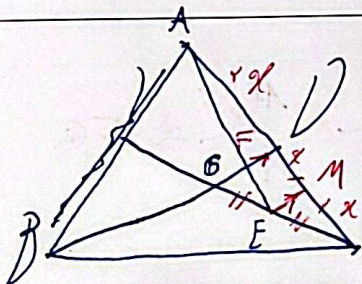
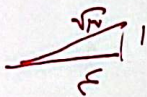


$$\frac{BN}{BC} = \frac{r}{d} \rightarrow \frac{S_{BMN}}{S_{ABC}} = \frac{\frac{1}{2} BM \times BN \times \sin \angle B}{\frac{1}{2} AB \times BC \times \sin \angle B}$$

$$\frac{BM \times BN}{AB \times BC} = \frac{1}{r} \rightarrow \frac{BM}{AB} \times \frac{r}{d} = \frac{1}{r} \rightarrow \frac{BM}{AB} = \frac{d}{r^2}$$

$$\frac{BM}{AB} = \frac{d}{r^2} \rightarrow \frac{BM}{AM} = \frac{d}{r^2} \rightarrow \frac{BM}{AM} = \frac{d}{r^2}$$

$$a^2 =$$



$$\frac{FD}{EM} = \frac{r}{x} = \frac{1}{r}$$

$$\frac{EM}{GD} = \frac{1}{r} \rightarrow \frac{EM}{BD} = \frac{1}{r} \rightarrow \frac{FD}{BD} = \frac{1}{r}$$