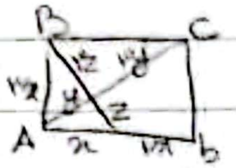
Date: Sub: (name illegible)

$ED = 2AF$ $\quad \frac{EF}{AF} = ?$

$AC \to 3\sqrt{2}\,x = 3y \to y = \frac{3\sqrt{2}}{2}x \;(AF)$ (۱

$BE \to \sqrt{10}\,x = 4z \to \frac{\sqrt{10}\,x}{4} = z \;(FE)$



$\frac{FE}{AF} = \frac{\frac{\sqrt{10}}{4}}{\frac{3\sqrt{2}}{2}} = \frac{\sqrt{10}}{3\sqrt{2}} = \frac{\sqrt{15}}{6}$

(۲

$ABC \sim AED \xrightarrow{\text{ززز}} \frac{AB}{AD} = \frac{BC}{ED} = \frac{AC}{AE}$

$\frac{x+1}{2} = \frac{15}{x} \to \frac{15}{x} \to 30 \qquad \underline{x = 5}$

(۳

$3y = 5x \to x = 3k \quad y = 5k$

$CHF \sim DHE \to \frac{HE}{HF} = \frac{3}{5} \to DE = 3m$

$FC = 5m$

$DE \parallel BC \to \frac{DE}{BC} = \frac{AE}{AC} = \frac{3}{3+5m} = \frac{1}{3} \qquad m = 0{,}9V$

$BC = 9{,}75$

(۵

$CEF \overset{\text{زز}}{\sim} ABF \to \frac{x}{4} = \frac{8}{x+4} \to x = 4$

$AF = 12$

(۴

$AB^2 = BH \cdot BC = 80$

$AC^2 = CH \cdot BC = 320$

$\frac{AC^2}{AB^2} = 4$

$\frac{AC}{AB} = 2$

(۶

$\frac{x+5{,}5}{x+11} = \frac{5{,}5}{8} \Rightarrow x = 6{,}6$

e: Sub: حسنی مرادی

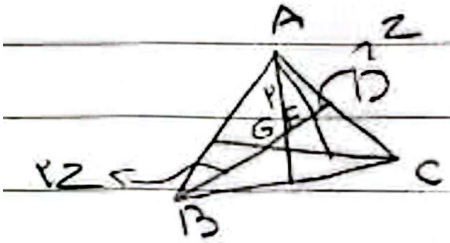
$AB^2 = x \cdot 4x$ $\quad BH^2 = x \cdot 4x$ $\quad \frac{S_{\Delta BCD}}{S_{ABH}} =$ (۱۷

$BC^2 = 9x \cdot 4x$

$A = \frac{\sqrt{12}x \times 2x}{\sqrt{4}x \times x \times 0.5} = \frac{BC \times AB}{BH \times 0.5 AH}$

(۸۰

(۹۰



$\frac{BD}{FD} = \frac{3Z}{0.2Z} = 4$ (۱۵