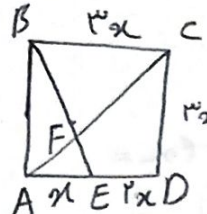
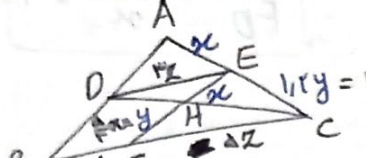
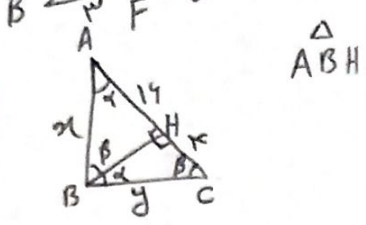


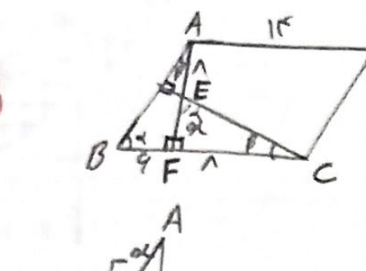
①  $\rightarrow AF = \frac{3\sqrt{2}x}{2}$, $EF = \frac{\sqrt{10}x}{2} \rightarrow \frac{EF}{AF} = \frac{\frac{\sqrt{10}x}{2}}{\frac{3\sqrt{2}x}{2}} = \frac{\sqrt{5}}{3}$

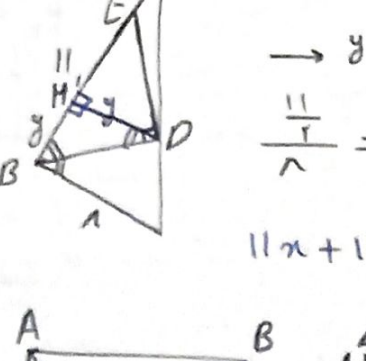
$\triangle BCF \sim \triangle AFE \rightarrow \frac{AF}{FC} = \frac{AE}{EC} = \frac{1}{2}$, $AC = \sqrt{(3x)^2 + (3x)^2} = 3\sqrt{2}x$, $BE = \sqrt{(3x)^2 + x^2} = \sqrt{10}x$
 $\hat{E}_1 = \hat{C}_1$, $\hat{A} = \hat{A} \rightarrow \triangle AED \sim \triangle ABC$

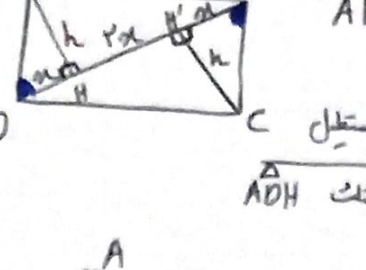
②  $\rightarrow \frac{x}{10} = \frac{x}{10} \rightarrow x^2 + x - 30 = 0$
 $(x+4)(x-3) = 0 \rightarrow \boxed{x = -4 \text{ قی}} \rightarrow \boxed{x = 3 \text{ قی}}$

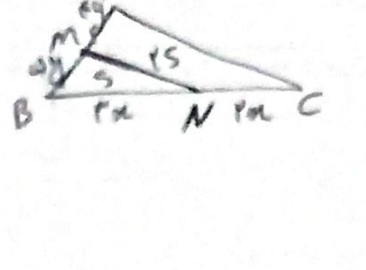
③  $\frac{x}{12} = \frac{x}{12} \rightarrow 4x + 3 = 9x \rightarrow x = \frac{3}{5} \rightarrow \boxed{3 + 4x = 9, VA = BC}$

④  $\triangle ABH \sim \triangle BHC \rightarrow \frac{BH}{F} = \frac{x}{y}$, $(BH)^2 = 4 \times 12 \rightarrow BH = 4$
 $\boxed{\frac{x}{y} = 2}$

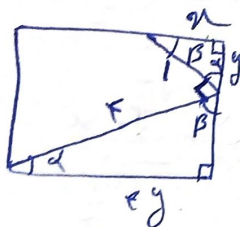
⑤  $\triangle ABF \sim \triangle EFC \rightarrow \frac{12+n}{n} = \frac{4}{n} \rightarrow n^2 + 12n - 48 = 0$
 $(n+12)(n-4) = 0 \rightarrow \boxed{AF = 4 + 8 = 12} \leftarrow \boxed{نقش n = 4}$

⑥  $\rightarrow y(11-y) = y^2 \rightarrow y(2y-11) = 0 \rightarrow \boxed{y = \frac{11}{2}}$
 $\frac{11}{2} = \frac{AH}{x+11} \rightarrow \frac{11}{2} = \frac{x+11}{x+11} \rightarrow \frac{11}{2} = \frac{x+11}{x+11} \rightarrow \boxed{x = \frac{11}{2} = 5.5}$

⑦  $\triangle AHD \sim \triangle CH'B \rightarrow AH = CH' = h$
 $\frac{h \times 8 \times 12}{h \times 8} = \frac{12 \times 8}{h} = \boxed{h = 6}$

⑧  $\frac{AB \times \sin \alpha \times \frac{1}{2} \times \sin \beta}{BM \times \sin \alpha \times \frac{1}{2} \times \sin \beta} = \frac{1}{1} \rightarrow \frac{AB}{BM} = \frac{9}{5}$
 $\boxed{\frac{BM}{AM} = \frac{5}{4}}$

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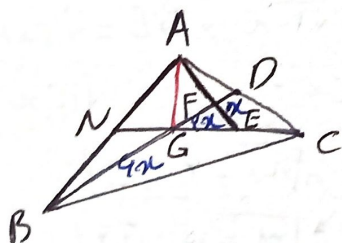


$$\frac{F}{1} = \frac{F_x}{x} = \frac{F_y}{y} \rightarrow$$

$$F_x \rightarrow F_y = F_x + y \rightarrow F_y = F_x$$

$$(F_y)^2 = \frac{F_x^2 y^2}{x^2} = S \quad \Delta y = F \rightarrow y = \frac{F}{a}$$

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$$\frac{AE}{GD} \rightarrow \frac{GF}{FD} = \frac{1}{1}, \quad \frac{CN}{BD} \rightarrow \frac{BG}{GD} = \frac{1}{1}$$

$$\frac{BD}{FD} = \frac{9x}{x} = 9$$