



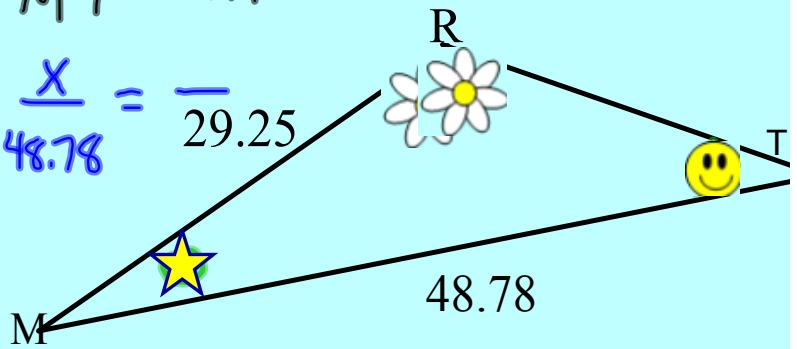
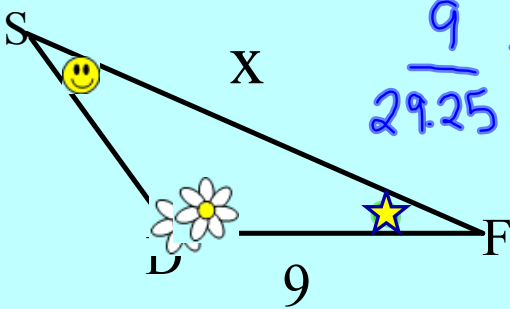
Similar Triangles



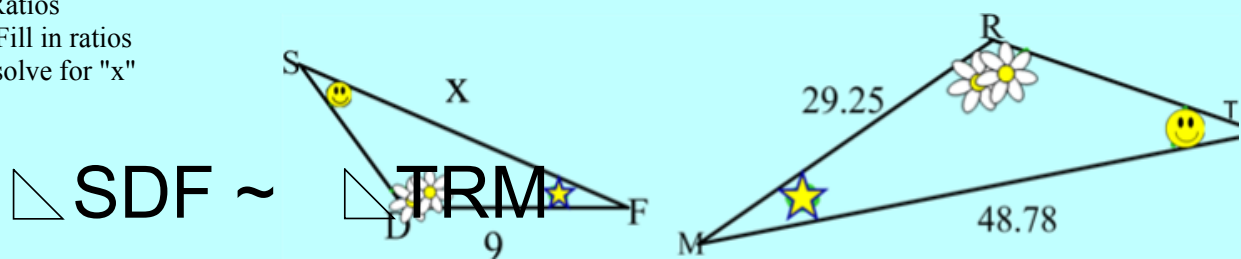
$$\triangle DFS \sim \triangle RMT$$

$$\frac{DF}{RM} = \frac{FS}{MT} = \frac{DS}{RT}$$

$$\frac{9}{29.25} = \frac{x}{48.78} = \frac{\quad}{29.25}$$



- i) Write the Similarity Statement
- ii) Ratios
- iii) Fill in ratios
- iv) solve for "x"



$$\triangle SDF \sim \triangle TRM$$

$$\frac{SD}{TR} = \frac{DF}{RM} = \frac{SF}{TM}$$

$$\frac{15}{29.25} = \frac{9}{48.78} = \frac{X}{48.78}$$

$$29.25X = 439.02$$

$$\frac{29.25X}{29.25} = \frac{439.02}{29.25}$$

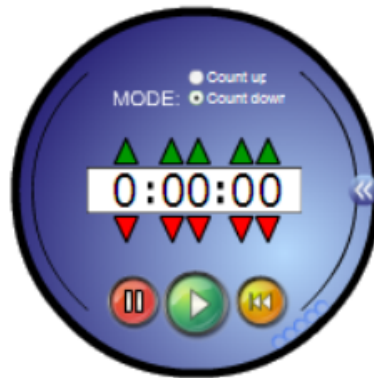
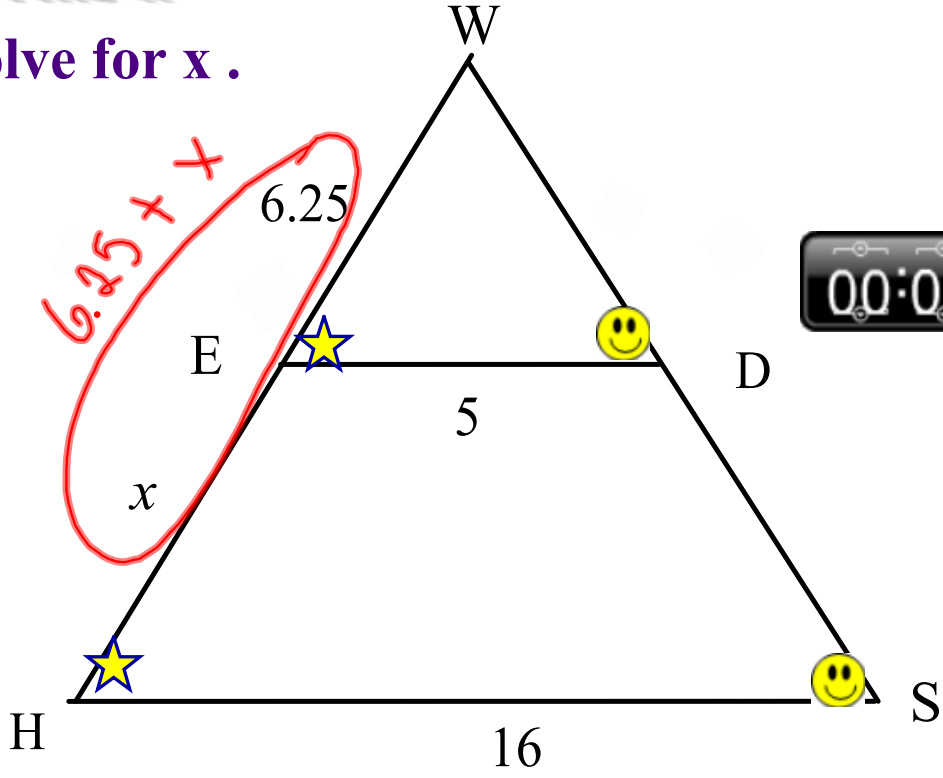
$$X = 15.0$$

Try This !!

Solve for x .

a)

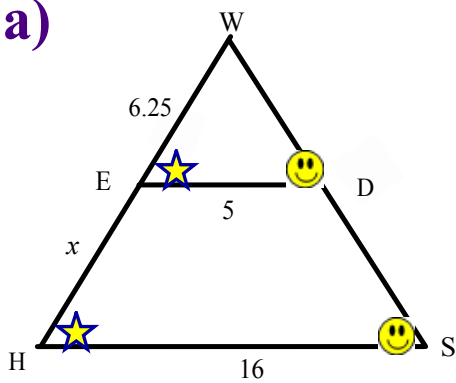
Indicate the angles that are equal.



Try This !!

Solve for x .

a)



Indicate the angles that are equal.

$$\triangle WED \sim \triangle WHS$$

$$\frac{WE}{WH} = \frac{ED}{HS} = \frac{WD}{WS}$$

$$\frac{6.25}{x + 6.25} = \frac{5}{16} = \text{---}$$

$$5(x + 6.25) = 100$$

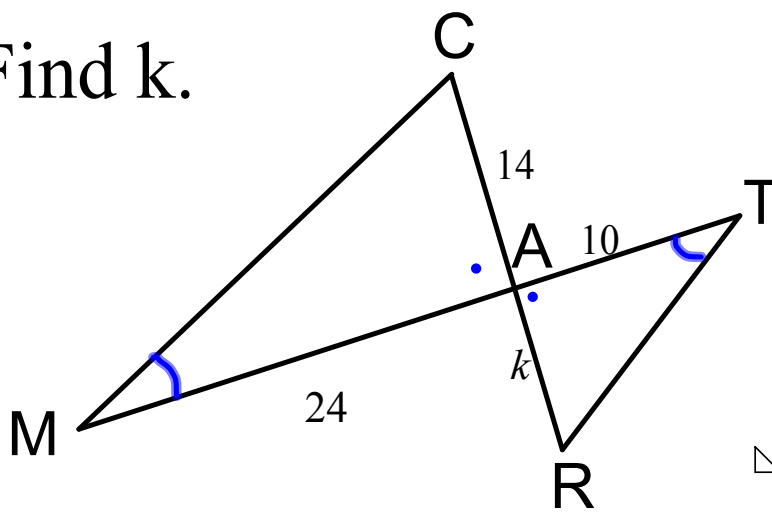
$$5x + 31.25 = 100$$

$$5x = 100 - 31.25$$

$$5x = 68.75$$

$$x = 13.75$$

Find k.



$$\triangle WED \sim \triangle WHS$$

$$\frac{WE}{WH} = \frac{ED}{HS} = \frac{WD}{WS}$$

$$\frac{6.25}{X + 6.25} = \frac{5}{16} = \text{---}$$

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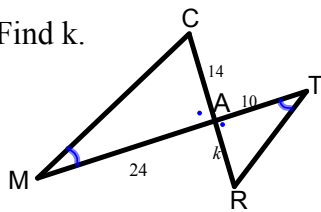
$$5X + 31.25 = 100$$

$$5X = 100 - 31.25$$

$$5X = 68.75$$

$$X = 13.75$$

Find k.



$$\triangle MCA \sim \triangle TRA$$

$$\frac{MC}{TR} = \frac{CA}{RA} = \frac{MA}{TA}$$

$$\frac{14}{k} = \frac{24}{10}$$

$$24k = 140$$

$$k = 5.8$$

