

Not done. Front side is good I think. I will add homework to the back.

Name: key
Period: _____

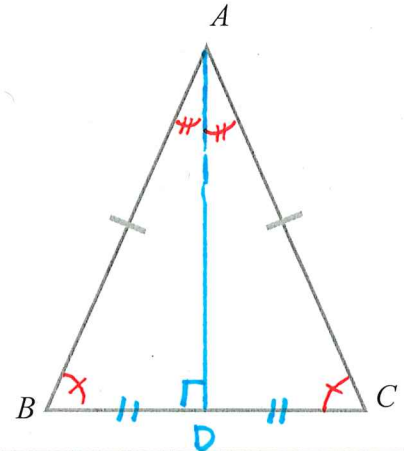
Core Concept

The altitude to the base of an isosceles triangle splits the figure into two congruent right triangles.

$$\triangle ADB \cong \triangle ADC$$

Mark all the congruent parts on the figure.

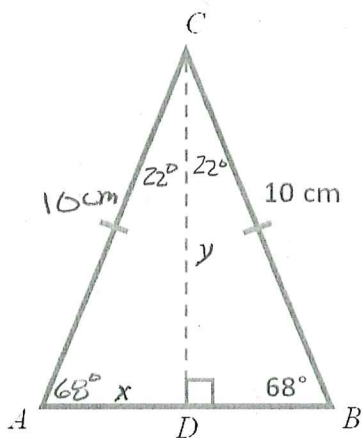
Note: D is the midpoint \overline{BC} .



Examples: Draw the altitude to the base of the isosceles triangle to form two congruent triangles. Find the measure of each angle. Mark any congruent sides.

<p>1)</p>	<p>2)</p>	<p>3)</p> <p style="text-align: center;">$m\angle A = 120^\circ$</p>
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4) Find area and perimeter of $\triangle ABC$. Keep your work neat and organized. It should be easy to see how you found x , y , and what you did to find the area and perimeter. Answers without clear supporting work are not acceptable.



Find x :

$$\cos(68^\circ) = \frac{x}{10}$$

$$x = 10 \cos(68^\circ)$$

$$x = 3.75$$

Find y :

$$\sin(68^\circ) = \frac{y}{10}$$

$$y = 10 \sin(68^\circ)$$

$$y = 9.27$$

Area:

$$\frac{1}{2} (7.50)(9.27)$$

$$34.76$$

Perim:

$$10 + 10 + 7.50$$

$$27.50$$

$$x = \underline{3.75}$$

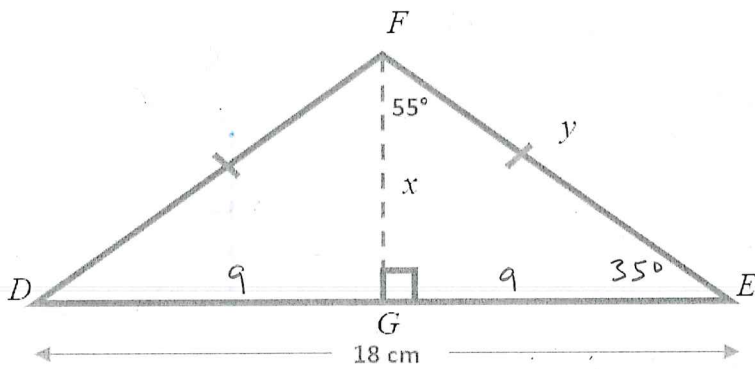
$$y = \underline{9.27}$$

$$AB = \underline{7.50}$$

$$\text{Area} = \underline{34.76}$$

$$\text{Perim} = \underline{27.50}$$

5) Find area and perimeter of $\triangle DEF$. Keep your work neat and organized. It should be easy to see how you found x , y , and what you did to find the area and perimeter. Answers without clear supporting work are not acceptable.



$$\text{Area} = \frac{1}{2}(18)(6.30) = 56.7$$

$$\text{Perim: } 18 + 10.99 + 10.99 = 39.98$$

Find x :

$$\begin{aligned} \tan 35^\circ &= \frac{x}{9} \\ x &= 9 \tan 35^\circ \\ x &= 6.30 \end{aligned}$$

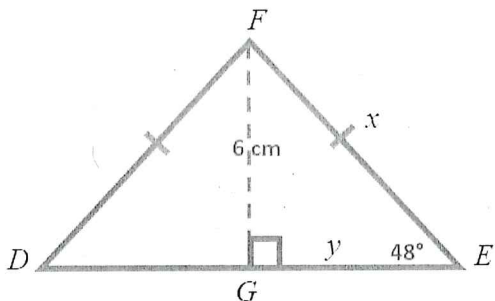
Find y :

$$\begin{aligned} \cos(35^\circ) &= \frac{9}{y} \\ y \cdot \cos(35^\circ) &= 9 \\ y &= \frac{9}{\cos(35^\circ)} \\ y &= 10.99 \end{aligned}$$

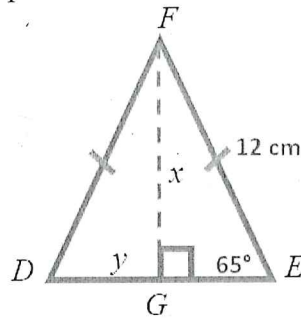
$GE = 9 \text{ cm}$
$x = 6.30 \text{ cm}$
$y = 10.99 \text{ cm}$
$\text{Area} = 56.70 \text{ cm}^2$
$\text{Perim} = 39.98 \text{ cm}$

HW #6: Do work on separate paper. Copy figures onto your paper. Keep your work neat and easy to read.

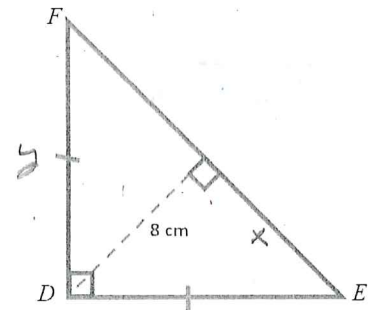
1) Find the area and perimeter of $\triangle DEF$.



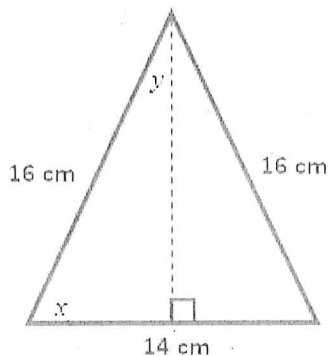
2) Find the area and perimeter of $\triangle DEF$.



3) Find the area and perimeter of $\triangle DEF$.



4) Find the measure of the angles x and y .



5) Find the area and perimeter of $\triangle ABC$.

