

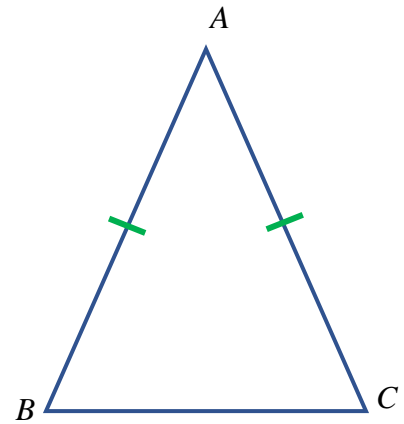
Core Concept

The _____ to the base of an
_____ triangle splits the figure into two
_____ triangles.

$$\triangle \text{_____} \cong \triangle \text{_____}$$

Mark all the congruent parts on the figure.

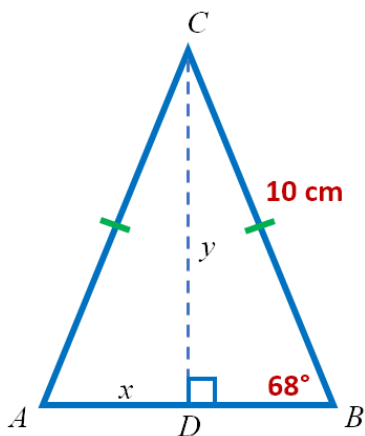
Note: D is the _____ \overline{BC} .



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>
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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.



$$x = \underline{\hspace{2cm}}$$

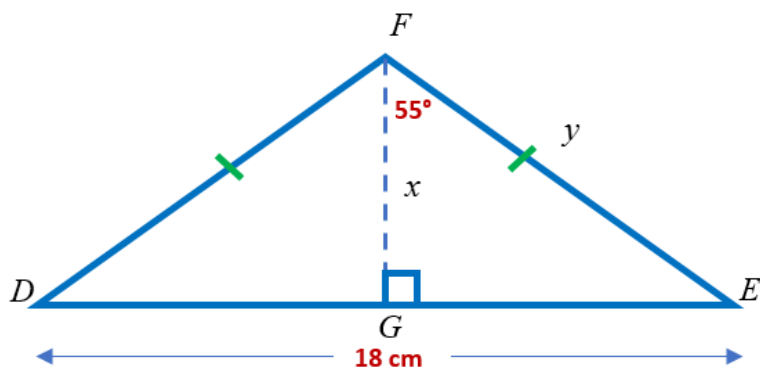
$$y = \underline{\hspace{2cm}}$$

$$AB = \underline{\hspace{2cm}}$$

$$\text{Area} = \underline{\hspace{2cm}}$$

$$\text{Perim} = \underline{\hspace{2cm}}$$

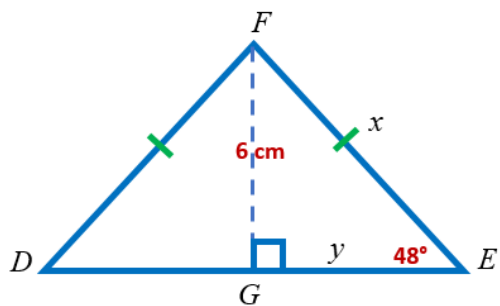
- 5) Find area and perimeter of $\triangle DEF$. Keep your work neat and organized. It should be easy to see how you found x , y , and what you did to find the area and perimeter. Answers without clear supporting work are not acceptable.



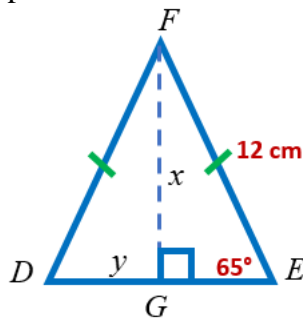
$GE =$ _____
 $x =$ _____
 $y =$ _____
 Area = _____
 Perim = _____

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

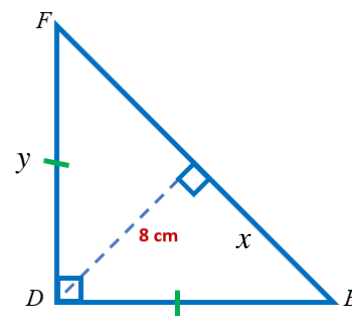
- 1) Find the area and perimeter of $\triangle DEF$.



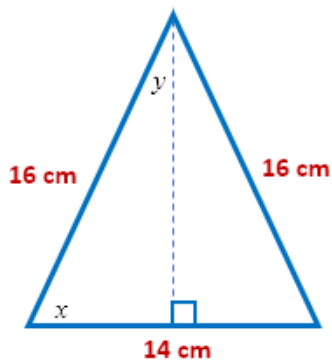
- 2) Find the area and perimeter of $\triangle DEF$.



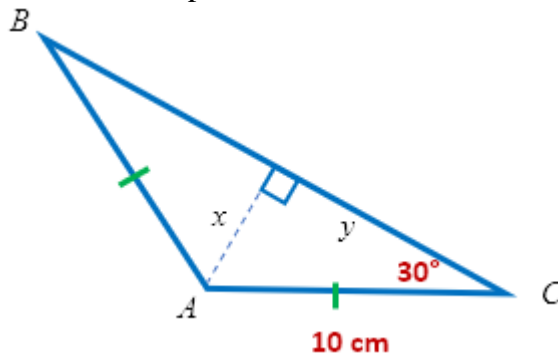
- 3) Find the area and perimeter of $\triangle DEF$.



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



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



Answers: x 's: 5, 8, 8.07, 10.88, 64.1 y 's: 5.07, 5.40, 8.66 or $5\sqrt{3}$, 11.31 or $8\sqrt{2}$, 25.9

Areas: 32.40, 43.30 or $25\sqrt{3}$, 55.16, 64 Perimeters: 26.94, 34.14, 37.32 or $20+10\sqrt{3}$, 38.63