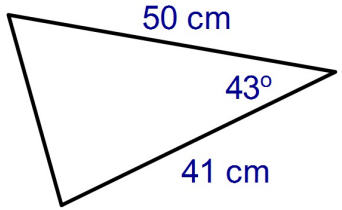
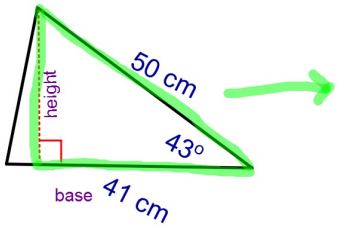
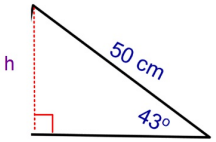
3. Find the area of this triangle. Round to the nearest tenth where necessary.



If you rotate the triangle slightly to make 41 horizontal across the bottom and call this the base then the height will be a vertical line coming down from the "highest" point.



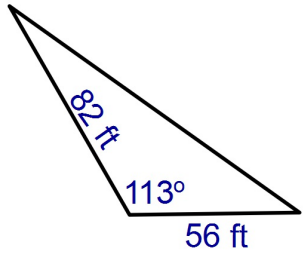


$\sin 43^\circ = \frac{h}{50}$

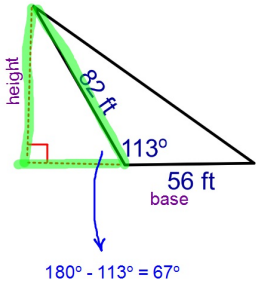
$h = 34.1$

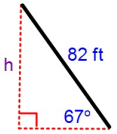
$A = \frac{1}{2}(41)(34.1) = 699.1$

Find the area of this triangle. Round to the nearest tenth where necessary.



If you make 56 the base the heigt would be a vertical line coming down from the highest point and stopping at the same level as the extended base.



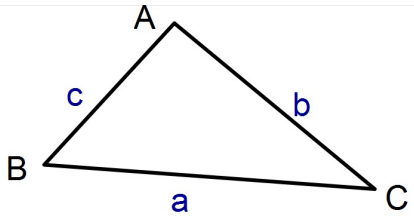


$\sin 67^\circ = \frac{h}{82}$

$h = 75.5$

$A = \frac{1}{2}(56)(75.5) = 2114$

In Triangle ABC:



Angles are labeled with Capital Letters:

A B C

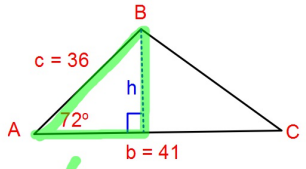
Sides are labeled with lower case letters:

a b c

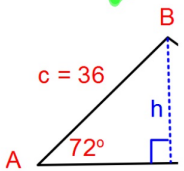
Sides and angles that are located opposite of each other use the same letter.

Find the area of $\triangle ABC$ where $\angle A = 72°$, $b = 41$, and $c = 36$

Begin by drawing and labeling a triangle. One way to do this is to pick one of the given sides as the base and draw it so that it is horizontal at the bottom of the triangle. For this example I'll choose b to be the base. This means angle A and C will be the angles on the left and right end of side b. For this problem I'll choose angle A to be on the left and angle C to be on the right.



Draw the height coming down vertically from the "highest" point.



$\sin 72^\circ = \frac{h}{36}$ $h = 34.2$

$A = \frac{1}{2}(41)(34.2)$

$A = 701.1$