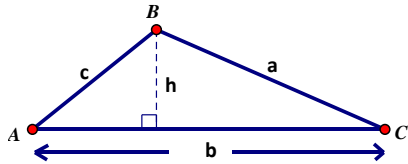
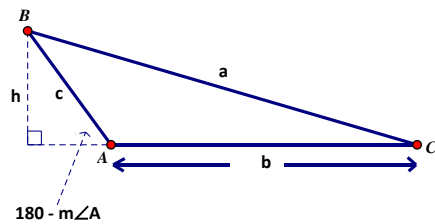


1. What is an oblique triangle?

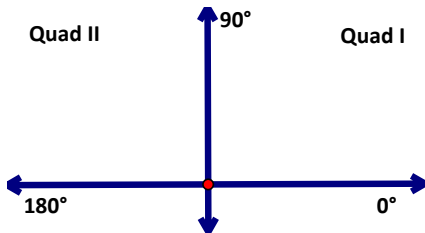
2. Given $\triangle ABC$, derive the area formula $Area = \frac{1}{2}bc \sin A$



3. Given $\triangle ABC$, derive the area formula $Area = \frac{1}{2}bc \sin A$



4. Explain why $\sin \theta = \sin (180^\circ - \theta)$.

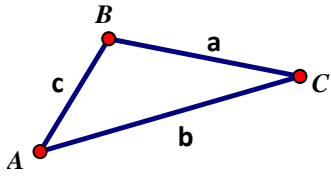


5. Determine the missing angle that makes the equation true. (some new... some review)

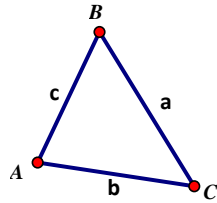
- | | | |
|----------------------------------|----------------------------------|----------------------------------|
| a) $\sin 23^\circ = \sin$ _____ | b) $\sin 67^\circ = \sin$ _____ | c) $\sin 87^\circ = \sin$ _____ |
| d) $\sin 143^\circ = \sin$ _____ | e) $\sin 140^\circ = \sin$ _____ | f) $\sin 155^\circ = \sin$ _____ |
| g) $\sin 53^\circ = \cos$ _____ | h) $\sin 76^\circ = \cos$ _____ | i) $\cos 50^\circ = \sin$ _____ |
| j) $\sin 45^\circ = \cos$ _____ | k) $\sin 90^\circ = \cos$ _____ | l) $\cos 5^\circ = \sin$ _____ |

6. Given the $\triangle ABC$, draw in the altitude (height) to the named base.

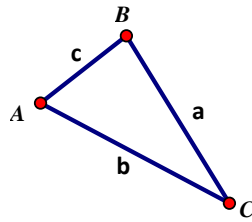
a) Base b



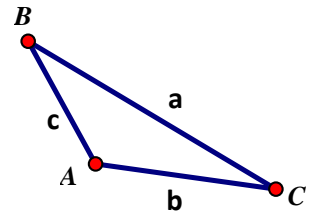
b) Base c



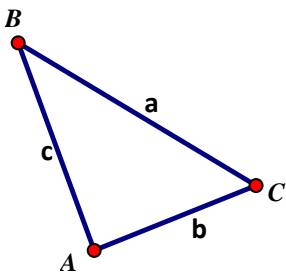
c) Base a



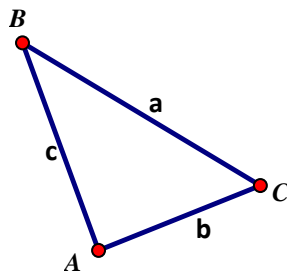
d) Base b



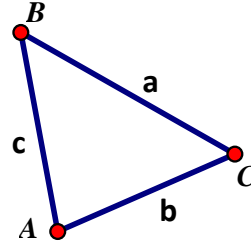
e) Base b



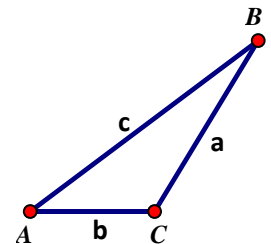
f) Base a



g) Base c

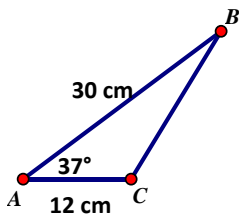


h) Base b

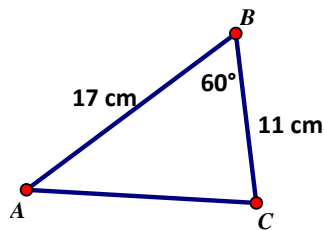


7. Calculate the area of the given triangles.

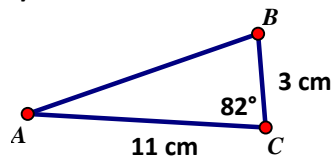
a)



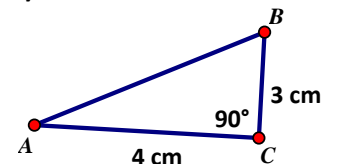
b)



c)



d)



Area = _____ cm^2

Area = _____ cm^2

Area = _____ cm^2

Area = _____ cm^2

8. Diagram $\triangle ABC$ and then calculate the area.

- a)
 $m\angle B = 23^\circ$
 $a = 15 \text{ cm}$
 $c = 8 \text{ cm}$

Diagram $\triangle ABC$

Calculate the Area of $\triangle ABC$

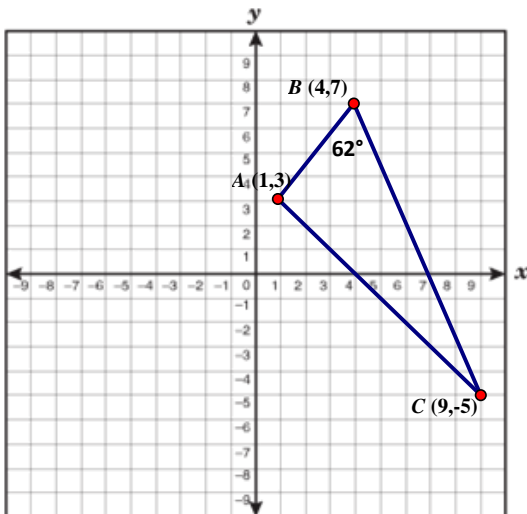
- b)
 $m\angle A = 105^\circ$
 $b = 7 \text{ cm}$
 $c = 5 \text{ cm}$

Diagram $\triangle ABC$

Calculate the Area of $\triangle ABC$

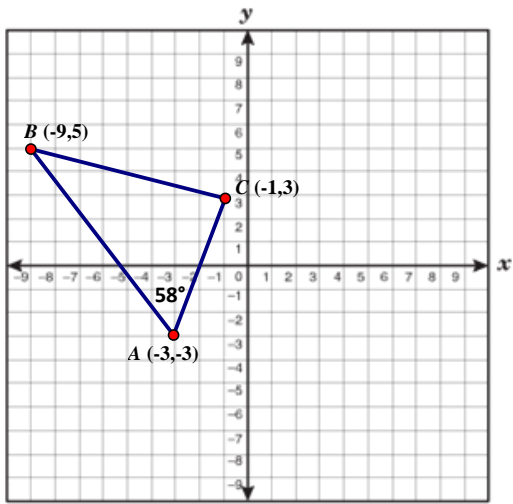
9. Given three points of a triangle, determine the area.

Remember that the distance formula is $\text{distance} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$



- a) A (1,3) B (4,7) C (9,-5)

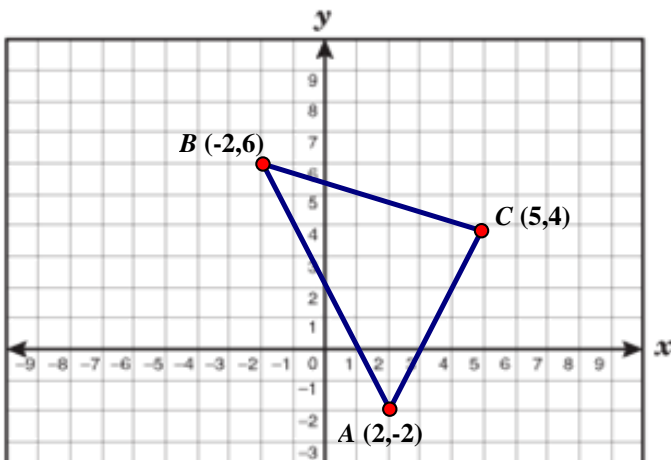
Area = _____



b) A (-3,-3) B (-9,5) C (-1,3)

Area = _____

10. The following area problem was given to a student but no angles were provided. How could she find the area of the triangle? Determine the area.



Area = _____