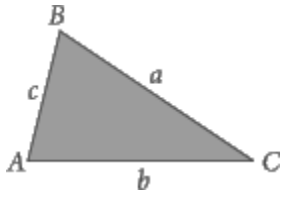
Unit 5: Right Triangle Trigonometry **Name:**_____
Day 13 Area of Triangles **Date:** _____ **Hour:** _____
(PH 9-5)

Theorem 9-1: Area of a Triangle (SAS)

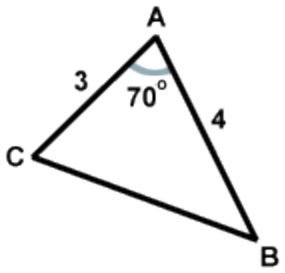
The area of a triangle is one half the product of the lengths of two sides and the sine of the included angle.



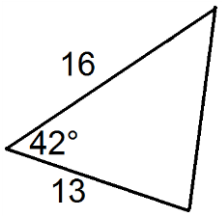
Area of $\Delta ABC = \frac{1}{2}bc(\sin A)$

Example 1: Find the area of each triangle.

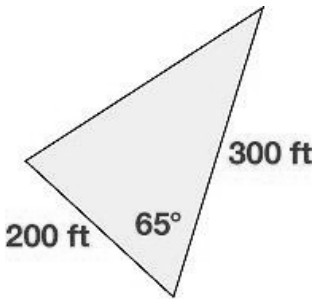
a.



b.



Example 2: A triangular park has two sides that measure 200 ft and 300 ft and form a 65° angle. Find the area of the park to the nearest hundred square feet.

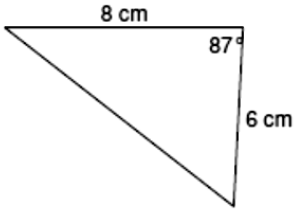


Homework: Day 13 KUTA Worksheet

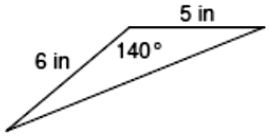
Unit 5: Right Triangle Trigonometry **Name:**_____
Day 13 KUTA Worksheet **Date:** _____ **Hour:** _____
(PH 9-5)

Find the area of each figure. Round your answer to the nearest tenth.

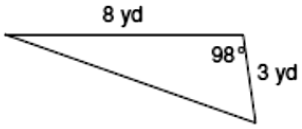
1)



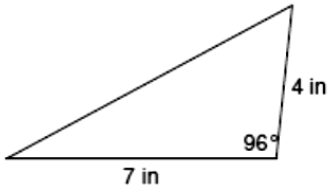
2)



3)



4)



5) A triangle with two sides that measure 6 yd and 2 yd with an included angle of 10°.

6) A triangle with two sides that measure 6 m and 8 m with an included angle of 137°.

7) A triangle with two sides that measure 5 cm and 8 cm with an included angle of 39°.

8) A triangle with two sides that measure 8 ft and 7 ft with an included angle of 30°.