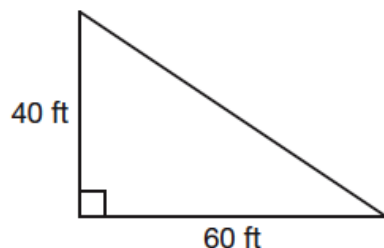


**Math II Unit 2 Quiz – Special Right Triangles** Name \_\_\_\_\_

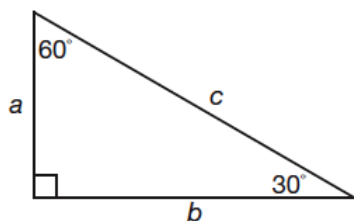
1.

A helicopter is flying 40 feet above the ocean and spots a man-eating shark directly below. The distance from the shark to the beach is 60 feet. How far is the helicopter from the beach?



2.

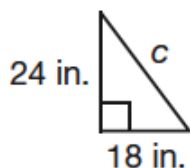
In the following triangle,  $a = 2\sqrt{3}$ . What is the value of  $b$ ?



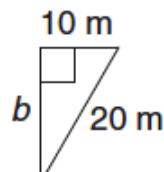
- a. 2
- b.  $4\sqrt{3}$
- c. 6
- d.  $6\sqrt{3}$

**Use the Pythagorean Theorem to find the missing side length of each triangle.**

3.



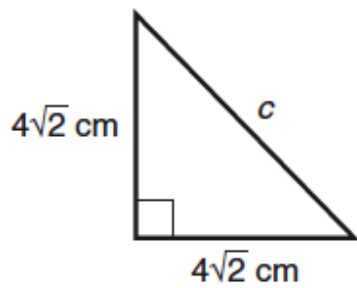
4.



5. The length of the diagonal of a square is  $3\sqrt{2}$  feet. What is the length of each side?

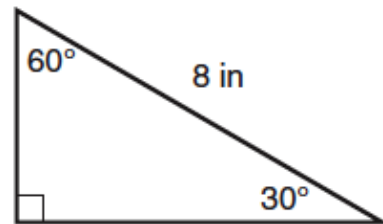
Find side  $c$

6.



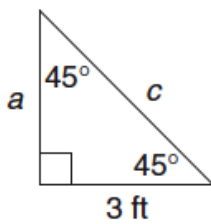
Calculate the area

7.

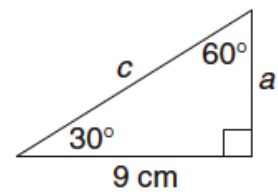


Find the unknown side lengths in each triangle. Write your answers in radical form.

8.



9.



10. What is the leg length of an isosceles right triangle with a hypotenuse of 28 centimeters?

**BONUS:** The diagonal of the square in the following figure is  $100\sqrt{2}$  meters. Find the perimeter of the track. The figure is composed of a square and a circle. Leave answers in decimal form.

