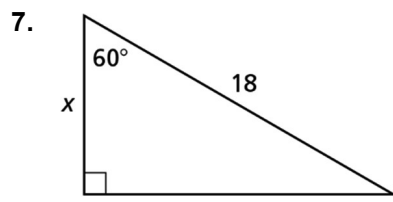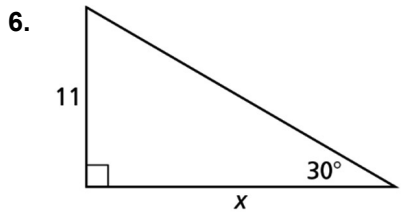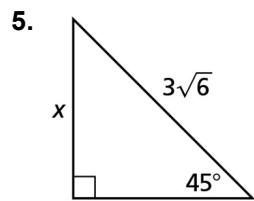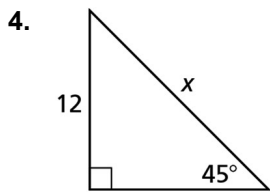# 9.2 Puzzle Time

What Is Always In Its House, No Matter Where It Goes?

Circle the letter of each correct answer in the boxes below. The circled letters will spell out the answer to the riddle.

Complete the sentence.

1. In a 45°-45°-90° triangle, the hypotenuse is _____ times as long as each leg.

2. A 45°-45°-90° triangle is a(n) _____ right triangle that can be formed by cutting a square in half.

3. In a 30°-60°-90° triangle, the hypotenuse is twice as long as the shorter leg, and the longer leg is _____ times as long as the shorter leg.

Find the value of _x_. Write your answer in simplest form.

4.

5.

6.

7.

A	L	A	T	E	U	R
$12\sqrt{2}$	$18\sqrt{3}$	3	$\sqrt{2}$	acute	9	$3\sqrt{3}$
T	**L**	**O**	**V**	**E**	**N**	**Y**
$11\sqrt{3}$	$\sqrt{3}$	4	$12\sqrt{3}$	isosceles	2	$11\sqrt{2}$