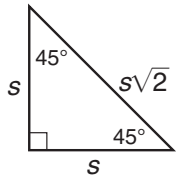
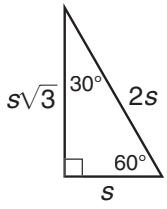
Name _____ Date _____ Class _____

SKILL 32

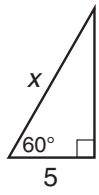
# Skills Readiness

## *Special Right Triangles*

| 45°-45°-90° Triangles | 30°-60°-90° Triangles |
|---|---|
| 1. Both legs are congruent.<br>2. The length of the hypotenuse is $\sqrt{2}$ times the length of a leg. | 1. The length of the hypotenuse is twice the length of the shorter leg.<br>2. The length of the longer leg is $\sqrt{3}$ times the length of the shorter leg. |
|  |  |

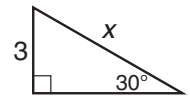
Example: Find the value of *x.* Give the answer in simplest radical form.

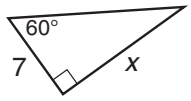
Answer: In a 30°-60°-90° triangle, the length of the hypotenuse is twice the length of the shorter leg. So solve: $x = 2(5)$ or $x = 10$.

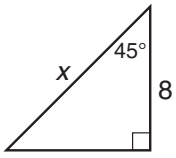


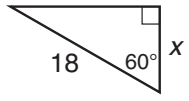

### Practice on Your Own

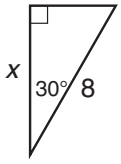
**Find the value of *x.* Give the answer in simplest radical form.**

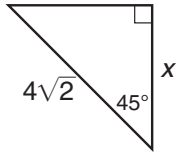
**1.** 

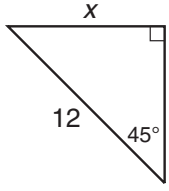

**2.** 

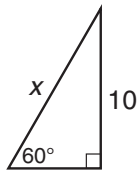

**3.** 


**4.** 


**5.** 

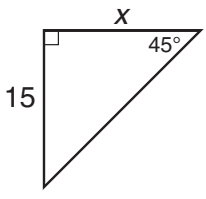

**6.** 

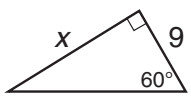

**7.** 

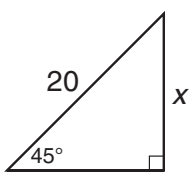

**8.** 


### Check

**Find the value of *x.***

**9.** 


**10.** 


**11.** 


**12.**