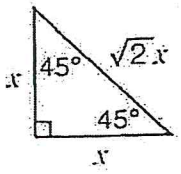
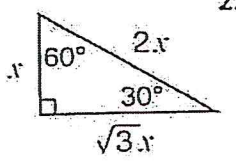
Name _____

Special Right Triangles

Remember

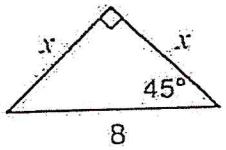


1. In a **45°–45°–90°** right triangle, the hypotenuse is $\sqrt{2}$ times as long as each leg.



2. In a **30°–60°–90°** right triangle, the hypotenuse is twice as long as the short leg. The long leg is $\sqrt{3}$ times as long as the short leg.

Example: Find the missing lengths.



$\sqrt{2}\,x = 8$

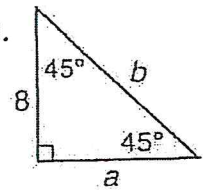
$x = \frac{8}{\sqrt{2}}$

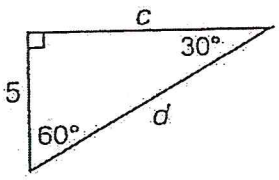
$= \frac{8}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$

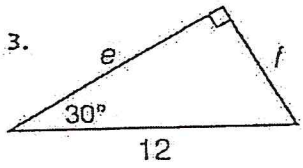
$= \frac{8\sqrt{2}}{2}$

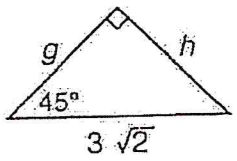
$= 4\sqrt{2}$

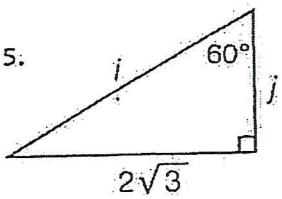
Use the 30°–60°–90° and the 45°–45°–90° triangle relationships to solve for the missing sides. Follow your answers in alphabetical order through the maze.

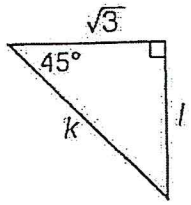
1. 

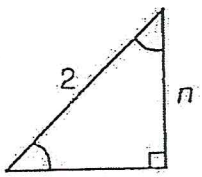
2. 

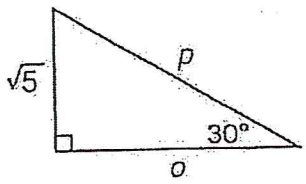
3. 

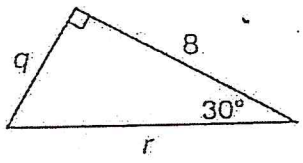
4. 

5. 

6. 

7. 

8. 

9. 

10.