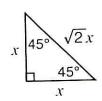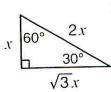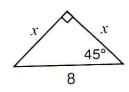# Special Right Triangles

Remember

1. In a **45°–45°–90°** right triangle, the hypotenuse is $\sqrt{2}$ times as long as each leg.
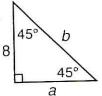
2. In a **30°–60°–90°** right triangle, the hypotenuse is twice as long as the short leg. The long leg is $\sqrt{3}$ times as long as the short leg.
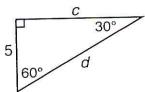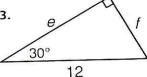
Example: Find the missing lengths.

$$\sqrt{2}\,x = 8$$
$$x = \frac{8}{\sqrt{2}}$$
$$= \frac{8}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$$
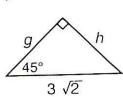$$= \frac{8\sqrt{2}}{2}$$
$$= 4\sqrt{2}$$

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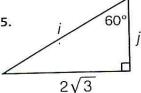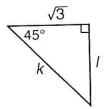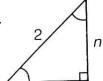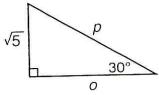habetical order through the maze.