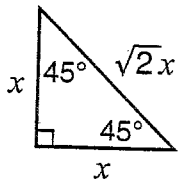
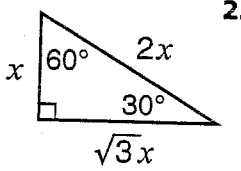
Name _____

Special Right Triangles

Remember

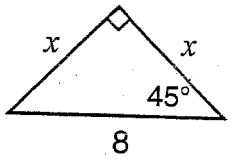


1. In a **45°–45°–90°** right triangle, the hypotenuse is $\sqrt{2}$ times as long as each leg.



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.



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

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

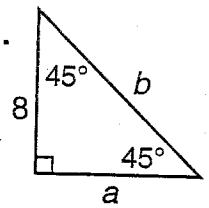
$= \frac{8}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}}$

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

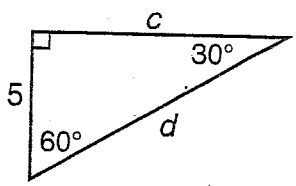
$= 4\sqrt{2}$

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.

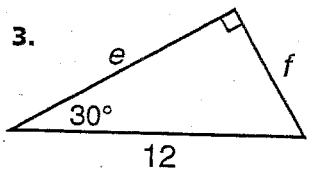
1.



2.



3.



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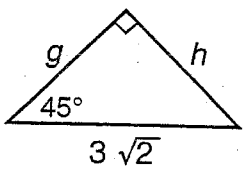
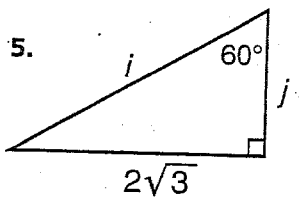


5.



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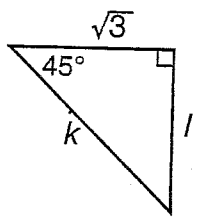

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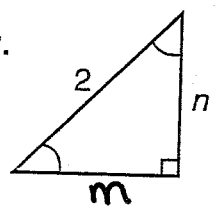
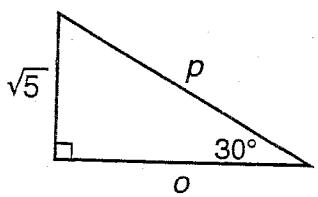
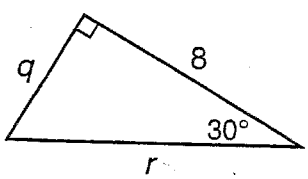


8.



9.



10.