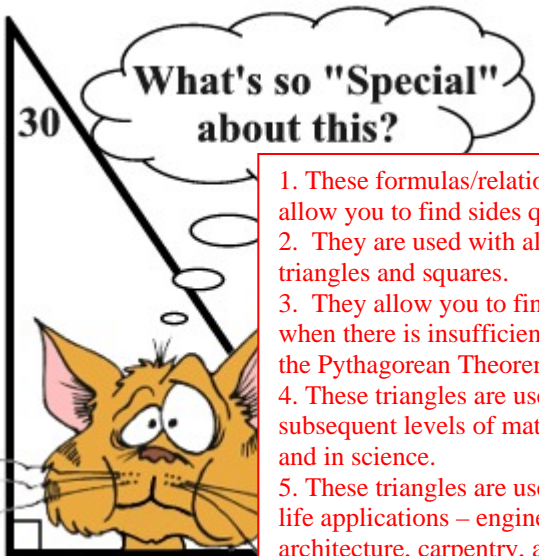


ANSWERS

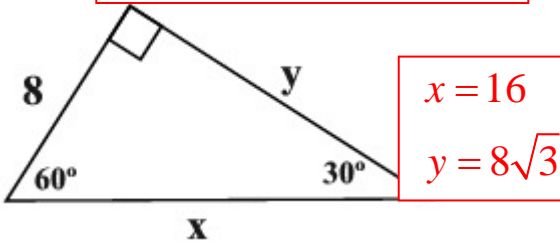
SPECIAL RIGHT TRIANGLES

Find the unknown lengths.



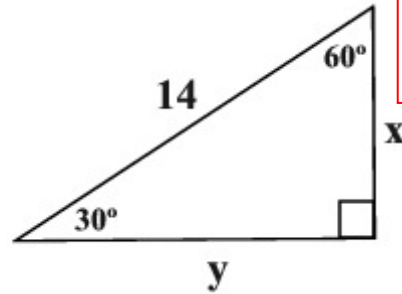
1. These formulas/relationships allow you to find sides quickly.
2. They are used with all equilateral triangles and squares.
3. They allow you to find sides when there is insufficient info for the Pythagorean Theorem.
4. These triangles are used in all subsequent levels of mathematics and in science.
5. These triangles are used in real life applications – engineering, architecture, carpentry, aeronautics, etc.

2.



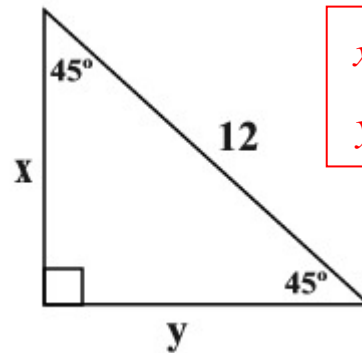
$$\begin{aligned} x &= 16 \\ y &= 8\sqrt{3} \end{aligned}$$

1.



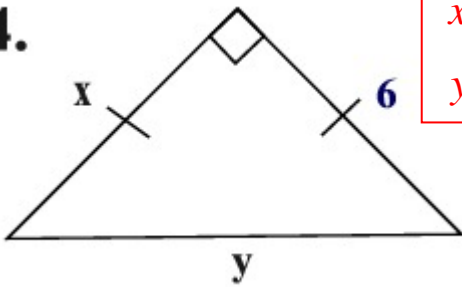
$$\begin{aligned} x &= 7 \\ y &= 7\sqrt{3} \end{aligned}$$

3.



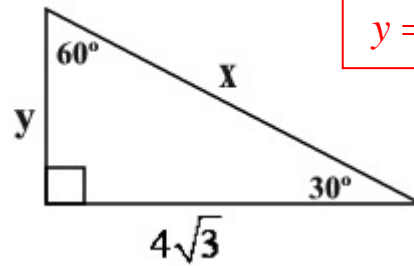
$$\begin{aligned} x &= 6\sqrt{2} \\ y &= 6\sqrt{2} \end{aligned}$$

4.



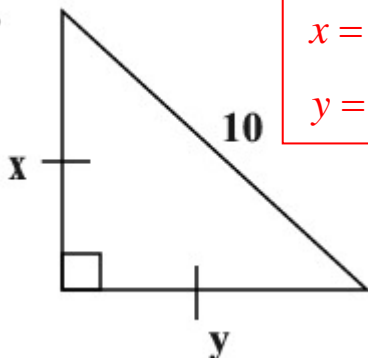
$$\begin{aligned} x &= 6 \\ y &= 6\sqrt{2} \end{aligned}$$

5.



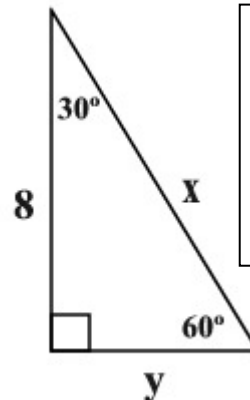
$$\begin{aligned} x &= 8 \\ y &= 4 \end{aligned}$$

6.



$$\begin{aligned} x &= 5\sqrt{2} \\ y &= 5\sqrt{2} \end{aligned}$$

7.



$$\begin{aligned} x &= \frac{16\sqrt{3}}{3} \\ y &= \frac{8\sqrt{3}}{3} \end{aligned}$$