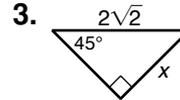
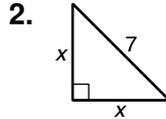
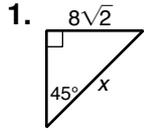


LESSON

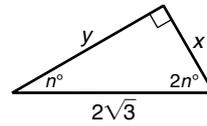
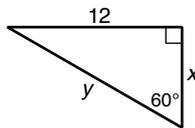
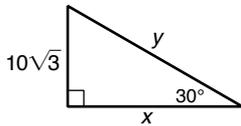
Practice B

5-8 Applying Special Right Triangles

Find the value of x in each figure. Give your answer in simplest radical form.



Find the values of x and y . Give your answers in simplest radical form.



4. $x =$ _____ $y =$ _____ 5. $x =$ _____ $y =$ _____ 6. $x =$ _____ $y =$ _____

Lucia is an archaeologist trekking through the jungle of the Yucatan Peninsula. She stumbles upon a stone structure covered with creeper vines and ferns. She immediately begins taking measurements of her discovery. (*Hint: Drawing some figures may help.*)

7. Around the perimeter of the building, Lucia finds small alcoves at regular intervals carved into the stone. The alcoves are triangular in shape with a horizontal base and two sloped equal-length sides that meet at a right angle. Each of the sloped sides measures $14\frac{1}{4}$ inches. Lucia has also found several stone tablets inscribed with characters. The stone tablets measure $22\frac{1}{8}$ inches long. Lucia hypothesizes that the alcoves once held the stone tablets. Tell whether Lucia's hypothesis may be correct. Explain your answer.

8. Lucia also finds several statues around the building. The statues measure $9\frac{7}{16}$ inches tall. She wonders whether the statues might have been placed in the alcoves. Tell whether this is possible. Explain your answer.
