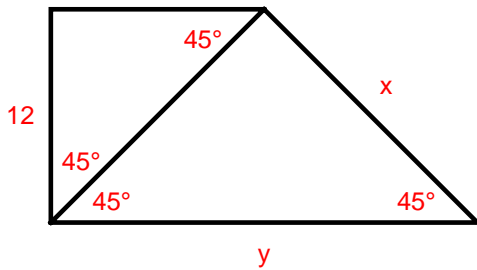


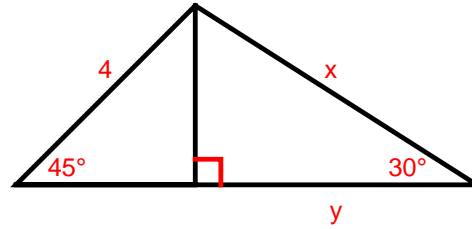
Worksheet 6.3: Special Right Triangles

Find the values of x and y in each diagram.

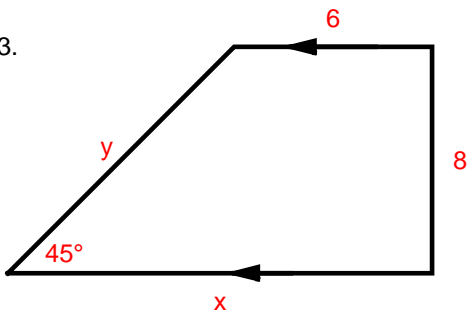
1.



2.



3.



4. The diagonals of a square are 10 units long. Find the length of a side of the square.

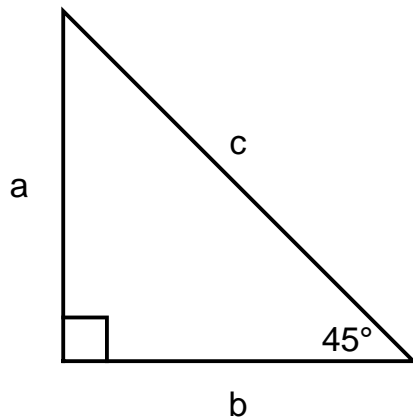
5. Find the length of a diagonal of a square whose perimeter is 36.

6. An altitude of an equilateral triangle has length $6\sqrt{3}$. What is the perimeter of the triangle.

7. Find the altitude of an equilateral triangle if each side is 10 units long.

8. If the measures of the angles of a triangle are in the ratio 1 : 2 : 3, are the lengths of the sides in the same ratio?

Use the figure below to complete the each exercise.



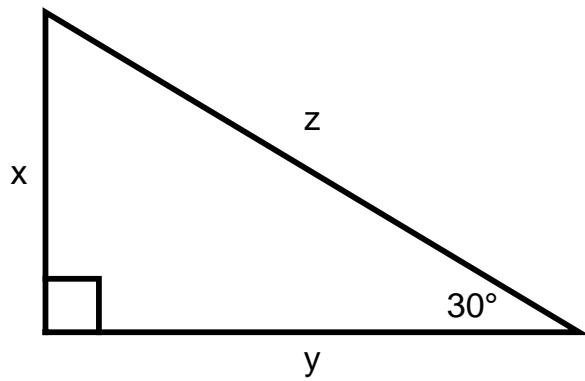
9. If $a = 8$, then $c =$ _____.

10. If $b = 2\sqrt{3}$, then $c =$ _____.

11. If $c = \sqrt{5}$, then $a =$ _____.

12. If $c = 12$, then $b =$ _____.

Use the figure below to complete each exercise.



13. If $x = 10$, then $y =$ _____ and $z =$ _____.

14. If $y = 10$, then $x =$ _____ and $z =$ _____.

15. If $z = 12$, then $x =$ _____ and $y =$ _____.

16. If $z = 4\sqrt{6}$, then $x =$ _____ and $y =$ _____.