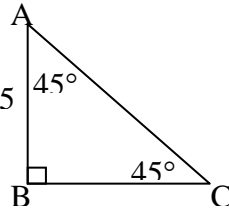
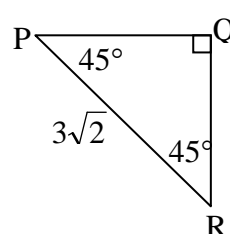


**Worksheet: Special Right Triangles 45-45-90**

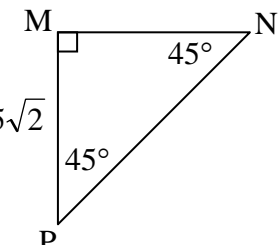
Find the lengths of the indicated sides. **SHOW ALL WORK.**

1.   $BC = \underline{\hspace{2cm}}$   
 $AC = \underline{\hspace{2cm}}$

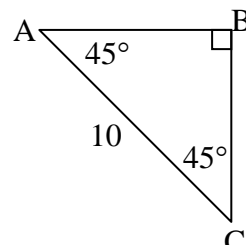
Leg(x)	Leg(x)	Hypotenuse ( $x\sqrt{2}$ )

2.   $PQ = \underline{\hspace{2cm}}$   
 $QR = \underline{\hspace{2cm}}$

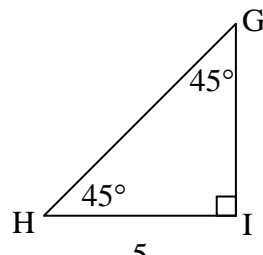
Leg(x)	Leg(x)	Hypotenuse ( $x\sqrt{2}$ )

3.   $MN = \underline{\hspace{2cm}}$   
 $NP = \underline{\hspace{2cm}}$

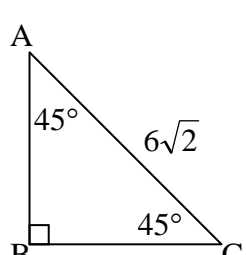
Leg(x)	Leg(x)	Hypotenuse ( $x\sqrt{2}$ )

4.   $AB = \underline{\hspace{2cm}}$   
 $BC = \underline{\hspace{2cm}}$

Leg(x)	Leg(x)	Hypotenuse ( $x\sqrt{2}$ )

5.   $GI = \underline{\hspace{2cm}}$   
 $HI = \underline{\hspace{2cm}}$

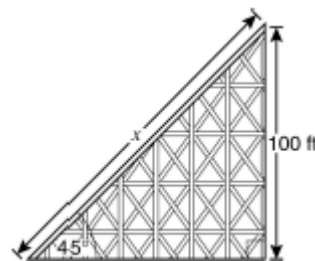
Leg(x)	Leg(x)	Hypotenuse ( $x\sqrt{2}$ )

6.   $AB = \underline{\hspace{2cm}}$   
 $BC = \underline{\hspace{2cm}}$

Leg(x)	Leg(x)	Hypotenuse ( $x\sqrt{2}$ )

7. Matt wants to design the first section of a roller coaster track. He wants the ramp section to rise at  $45^\circ$  with the horizontal and connect at the top of a segment 100 feet high. Find  $x$ , the length of the ramp Matt needs to complete his section of the coaster track?

Leg(x)	Leg (x)	Hypotenuse ( $x\sqrt{2}$ )



8. A square has a perimeter of 32 inches. How long is the diagonal?

Leg(x)	Leg (x)	Hypotenuse ( $x\sqrt{2}$ )

9. A square has side lengths of 23 inches. How long is each diagonal?

Leg(x)	Leg (x)	Hypotenuse ( $x\sqrt{2}$ )

10. Sam's square bedroom has a diagonal of  $9\sqrt{2}$  feet. What is the length of each side?

Leg(x)	Leg (x)	Hypotenuse ( $x\sqrt{2}$ )