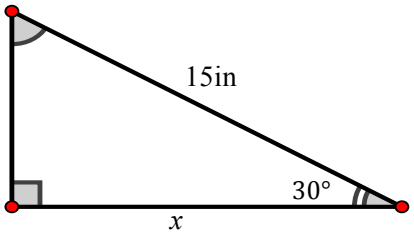
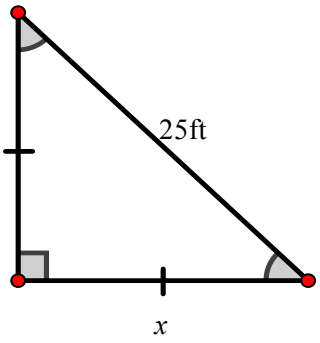
Geometry 4d: Special Right Triangles **Name** _____
Homework #3 **Pd** _____ **Date** _____

1. Solve for x in each of the triangles below.

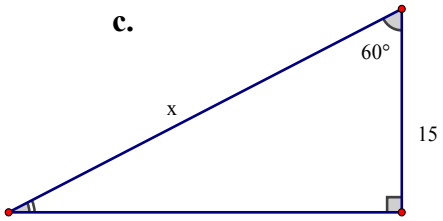
a.



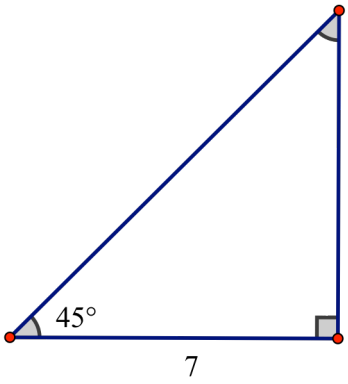
b.

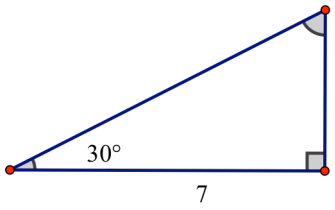


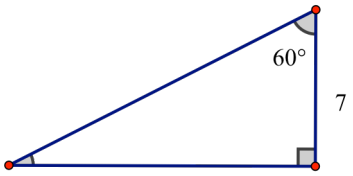
c.



2. Draw a circle around one of the triangles below that would be easiest for you to determine the length of the hypotenuse? Explain why you chose the triangle that you circled.

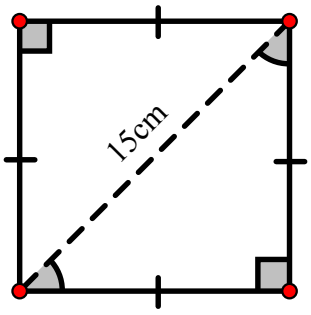






3. Determine the lengths of all missing side lengths in the three triangles above.

4. The square shown to the right has a diagonal with a length of 15 cm. Determine the length of each side of the square.



5. Draw arrows to match each expression in the list on the left with an equivalent expression in the list on the right are equivalent.

$\sin(30°)$	$\sin(60°)$
$\cos(30°)$	$\cos(90°)$
$\sin(45°)$	$\cos(60°)$
$\sin(0°)$	$\cos(45°)$

6. A football field is in the shape of a rectangle that measures 50 yards by 120 yards. Bryan wants to walk from one corner of the football field to an opposite corner. How much shorter would he have to walk if he walked in a direct line from one corner to the opposite corner (along the diagonal of the rectangle) instead of walking along the edges of the field.