**Classwork WS #1**

 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**45º, 45º, 90º Triangle Vocab. Reference Triangle Ratios**



In a 45º, 45º, 90º triangle, the legs are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. 

3

3

a

45º

1. 

5

b

a

45º

1. b

a

 
2. a

b


3. 

a

3

45º

1. 

a

6

45º

Find **a** and **b.**

45°

45°



a

b

1. 2. 3.

b

a

a

a = \_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_ a = \_\_\_\_\_\_\_ a = \_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_



4. 5. 6.

45°

45°

b

a



45°

45°

a

b



b

a

a = \_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_ a = \_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_ a = \_\_\_\_\_ b = \_\_\_\_\_\_

45°

45°



a

b

7. 8. 9.

45°

45°

a



b





a

a = \_\_\_\_\_\_\_ a = \_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_ a = \_\_\_\_\_\_ b =\_\_\_\_\_\_

10. 11. 12.

45°

45°



a

b

45°

45°

b

a



45°

45°

a

b



a = \_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_ a = \_\_\_\_\_\_\_ b = \_\_\_\_\_\_\_ a = \_\_\_\_\_\_ b = \_\_\_\_\_\_\_

1. A triangle has the following characteristics: a 90º angle and side lengths both measuring in. Find the length of the hypotenuse.
2. The area of a square is 25 cm. What is the product of the lengths of the diagonals of the square?

 15. If a diagonal of the square is , what is the length of each side?

**Find the area of triangle ABC in the following. Don’t forget to write your units!**

16. A

   cm

 45o 90o 45o

 B D C

AD = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DC \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_BC = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Area ABC = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17.

 A DC = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_BC = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 AB = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_AC = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Perimeter of ∆ABC= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 24 yd Area ABC = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 45o 45o

 B D C

18. <--------------------------------------------------------------------->

 D

 B 45o 90o 45o C

 DC= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DB = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 AD = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_AC = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Area ABC = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 A Perimeter of ∆ABC= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_