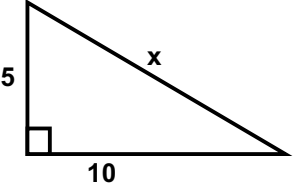NAME_____DATE_____PER._____

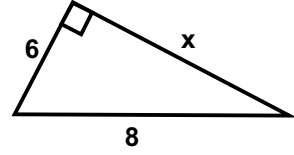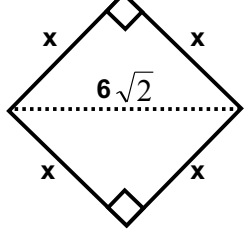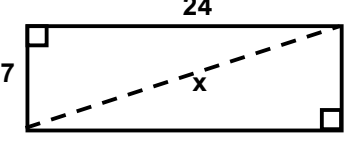## Unit 4 Bundle 11 Test Review

PART 1. PYTHAGOREAN THEOREM
For each of the following, find the value of 'x' in simplest radical form.

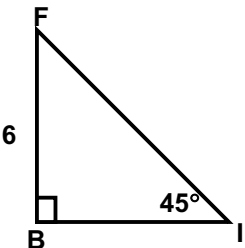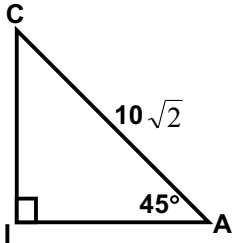|	
_____1.	
_____2.	
_____3.	
_____4.	
_____5.	A rectangle has a diagonal of 2 cm and a length of 1.5 cm. Find its width to the nearest tenth.
_____6.	Find the length of a diagonal of a square with a perimeter of 16.

PART 2. CONVERSE OF THE PYTHAGOREAN THEOREM
Tell whether a triangle with sides of given lengths can be formed, and is so, classify is as _acute, right, or obtuse_.

7. Can a triangle be formed? 　　　YES　or　NO Classification:	Side lengths: 9, 9, and 3

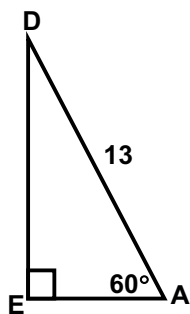|	
8. Can a triangle be formed? 　　　YES　or　NO Classification:	Side lengths: 8, $8\sqrt{3}$, 16
9. Can a triangle be formed? 　　　YES　or　NO Classification:	Side lengths: 11, 11, 15
10. Can a triangle be formed? 　　　YES　or　NO Classification:	Side lengths: 8, 14, 22

PART 3. 45°-45°-90° & 30°-60°-90° TRIANGLES
For each of the following, find the indicated lengths.

11. FI = _____ 　　BI = _____	
12. CI = _____ 　　IA = _____	

13. DE = _____

EA = _____

D

13

60° A

E

14. FE = _____

ED = _____

F

60°

3

30°

E   D

15. SW = _____

SA = _____

ST = _____

TA = _____

W

$9\sqrt{3}$

60°

S

45°

A

T

Find the values of the variables.

16)

5

d

h

3

17)

x

25   16

18)

s

r

3

1

19)

a   2

h

4

b
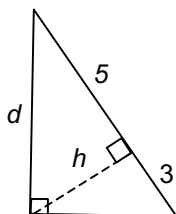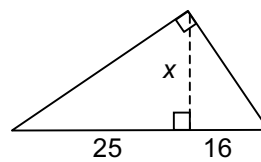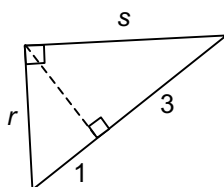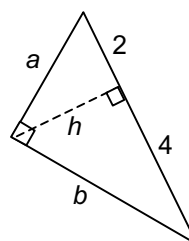
A Mishmash of Answers:

$9, 18, 9\sqrt{2}, 9\sqrt{2}$

20

6

Yes, acute

1.32

$6.5\sqrt{3}, 6.5$

$5\sqrt{5}$

10, 10

$2, 2\sqrt{3}$

30°

No

$4\sqrt{7}$

$4\sqrt{2}$

3

$2\sqrt{10}, \sqrt{15}$

$2\sqrt{2}, 2\sqrt{3}, 2\sqrt{6}$

Yes, right

$6, 3\sqrt{3}$

25

11.5

Yes, acute

$6\sqrt{2}; 6$

26

13