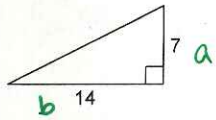
8th Grade Math Name_____ ID: 1

Pythagorean Theorem RTR HWK

Date_____

Find each missing length to the nearest tenth.

1)



A) 16.9 B) 246.5
C) 15.7 D) 21

$a^2 + b^2 = c^2$

$7^2 + 14^2 = c^2$

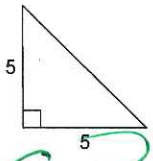
$49 + 196 = c^2$

$245 = c^2$

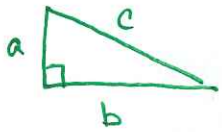
$\sqrt{245} = \sqrt{c^2}$ square root of each side

$15.7 \approx c$

2)



A) 7.1 B) 8.3
C) 50.4 D) 10



$a^2 + b^2 = c^2$

$5^2 + 5^2 = c^2$

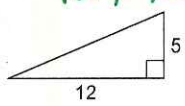
$25 + 25 = c^2$

$50 = c^2$

$\sqrt{50} = \sqrt{c^2}$

$7.1 \approx c$

3)

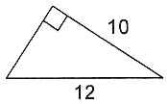


A) 12.4 B) 112.4
C) 13 D) 17

4)

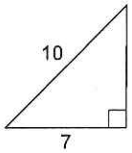
A) 82.8 B) 53.3
C) 9 D) 7.3

5)



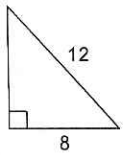
A) 2 B) 43.6
C) 6.6 D) 8.7

6)



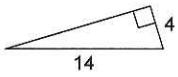
A) 50.4 B) 8.3
C) 3 D) 7.1

7)



A) 9.8 B) 4
C) 79.2 D) 8.9

8)



A) 204.5 B) 13.4
C) 179.6 D) 10

9) $a = 6,\ b = ?,\ c = 9$

A) 6.1 B) 44.9
C) 6.7 D) 3

$a^2 + b^2 = c^2$

$6^2 + b^2 = 9^2$

$36 + b^2 = 81$

$-36 \qquad -36$ subtract 36 from each side

$b^2 = 45$

$\sqrt{b^2} = \sqrt{45}$ square root of each side

$b \approx 6.7$

10) $a = 5,\ b = 4,\ c = ?$

A) 5.2 B) 41
C) 6.4 D) 9

11) $a = 8,\ b = 3,\ c = ?$

A) 72.3 B) 8.5
C) 6.1 D) 11

12) $a = ?,\ b = 4,\ c = 6$

A) 4.5 B) 47.6
C) 2 D) 20.3