

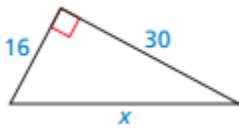
9.1 Pythagorean Theorem CYU

Use when you get it right all by yourself
S Use when you did it all by yourself, but made a silly mistake
H Use when you could do it alone with a little help from teacher or peer
G Use when you completed the problem in a group
X Use when a question was attempted but wrong (get help)
N Use when a question was not even attempted

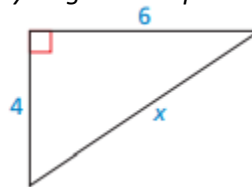
CONCEPTS	BASIC	INTERMEDIATE	ADVANCED
Solving right triangles	1 - 3	5, 15	4, 16
Pythagorean Triples	1 - 3	5, 15	4, 16
Pythagorean Theorem	6	7, 15	16
Error Analysis	6	7	
Modeling with Mathematics	8		
Pythagorean Inequality Theorem	9, 12	10, 13	11, 14
Triangle Inequality Theorem (Is it a triangle?)	12	13	14
Area of Isosceles Triangles		15	16

Find the value of x . Then tell whether the side lengths for a Pythagorean triple.

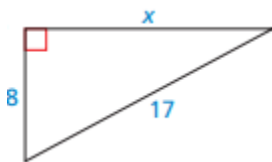
1.



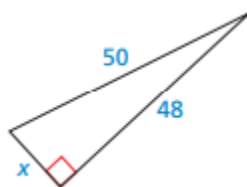
2.



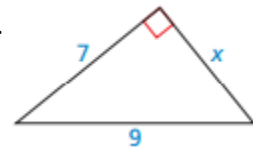
3.



4.



5.



ERROR ANALYSIS Describe and correct the error in using the Pythagorean Theorem.

6.

✗

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

$$x^2 = 7^2 + 24^2$$

$$x^2 = (7 + 24)^2$$

$$x^2 = 31^2$$

$$x = 31$$

7.

✗

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

$$x^2 = 10^2 + 26^2$$

$$x^2 = 100 + 676$$

$$x^2 = 776$$

$$x = \sqrt{776}$$

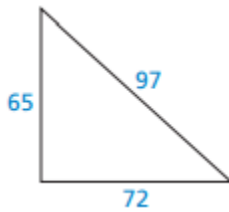
$$x \approx 27.9$$

8. **MODELING WITH MATHEMATICS** The fire escape forms a right triangle, as shown. Use the Pythagorean Theorem to approximate the distance between the two platforms.

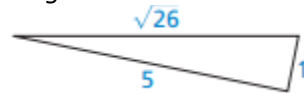


Determine if the triangle is a right triangle.

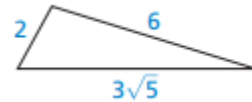
9.



10.



11.



Verify that the segment lengths for a triangle. Is the triangle acute, right, or obtuse?

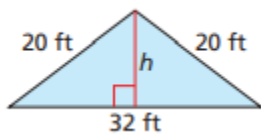
12. 5.3, 6.7, & 7.8

13. 10, 15, & $5\sqrt{13}$

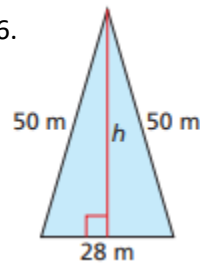
14. 4.1, 8.2, & 12.2

Find the area of the isosceles triangle.

15.



16.



CYU Reflection: How far can you go: basic, intermediate, or advanced?

Rate your mastery level!

How confident are you with the skills this CYU covered? Circle the score you would give yourself.

1
 2
 3
 4
 5
 6
 7
 8

Basic Intermediate Advanced Solved ALL!