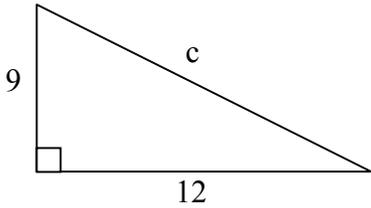


**PYTHAGOREAN THEOREM
ALGEBRA – EXAMPLES**

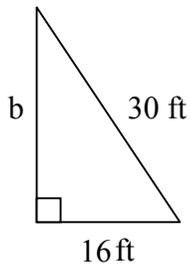
NAME: _____
PERIOD: ____ **#:** ____

1. What is the length of the hypotenuse of the triangle?



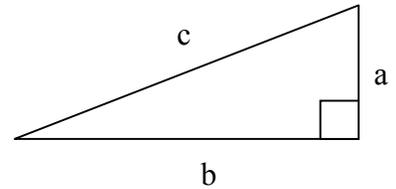
Write the Pythagorean Theorem: _____
 Substitute 9 for a and 12 for b : _____
 Simplify: _____
 To get c by itself, take the square
 Root of both sides: _____
 Write the answer: $c =$ ____

2. Find the length of the missing side in the triangle below.



Write the Pythagorean Theorem: _____
 Substitute 16 for a and 30 for c : _____
 Simplify: _____
 Subtract 256 from both sides: _____
 To get b by itself, take the square
 Root of both sides (calculator is ok): _____
 Write the answer: $b =$ ____ ft.

Using the triangle at the right, find the length of the missing side.



3. $a = 6, b = 8, c = ?$

4. $a = 3, b = ?, c = 5$

5. $a = ?, b = 10, c = 15$ (Round to nearest tenth)

6. A pigeon leaves its nest and flies 5 km due east. Then he flies 3 km due north. How far is the pigeon from his nest? (Draw a picture! Round to nearest tenth).