Geometry
Unit: Right Triangles and Trigonometry
Section: Review of the Pythagorean Theorem

Review Worksheet KEY

1) If the lengths of the legs of a right triangle are 25 and 36, what is the length of the hypotenuse?

$25^2 + 36^2 = c^2$
$625 + 1296 = c^2$
$1921 = c^2$
$43.83 \approx c$

2) If one leg of a right triangle has length 21 and the hypotenuse has length 53, what is the length of the other leg?

$21^2 + b^2 = 53^2$
$441 + b^2 = 2809$
$b^2 = 2368$
$b \approx 48.66$

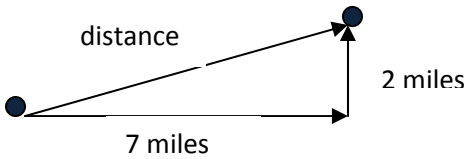
3) Do the length 9, 15 and 12 make a right triangle?

$9^2 + 12^2 = 15^2$
$81 + 144 = 225$
$225 = 225$
This is true, so the lengths DO make a right triangle.

4) Are the numbers 15, 16, 22 a Pythagorean Triple?

$15^2 + 16^2 = 22^2$
$225 + 256 = 484$
$481 = 484$
This is NOT true, so the numbers are NOT a Pythagorean Triple.

5) To get to the mall, you have to drive 7 miles East and 2 miles North. How far away is the mall if you could drive straight there?



$7^2 + 2^2 = d^2$
$49 + 4 = d^2$
$53 = d^2$
$7.28 \approx d$

The distance to the mall is approximately 7.28 miles.