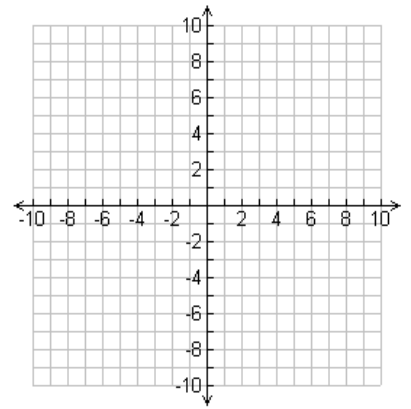


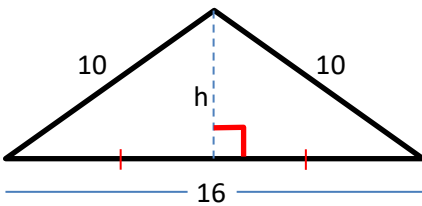
Pythagorean Theorem

Name: _____

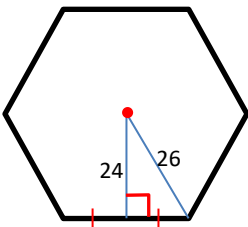
1) Find the distance between the points (3, -2) and (8, 5) two different ways: a) By plotting them on the grid to the right and drawing the triangle, and b) by using the Distance Formula: $d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$. Make sure you get the same answer both ways.



2) Remember, the area of a triangle is $A = \frac{1}{2}bh$, where **b** is the base of the triangle and **h** is the height. Use the Pythagorean Theorem to find the height of the triangle, then find the area.

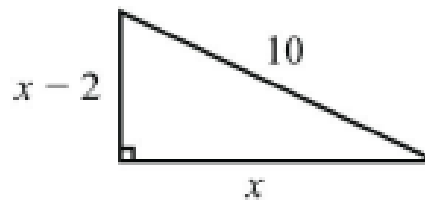
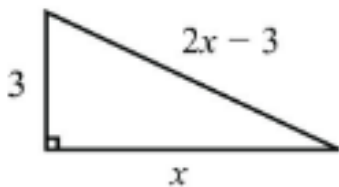


3) a. Find the perimeter of the regular hexagon.



3) b. Find the area of the hexagon. (The dot is the center of the hexagon. You can divide the whole shape into triangles and find the area of each one!)

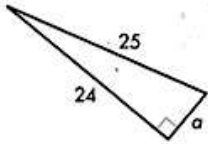
4) Find the value of x for each.



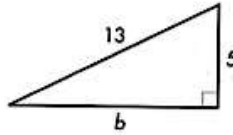
Pythagorean Triples

Complete 1-6 without a calculator. Use the common Pythagorean Triples we learned in class.

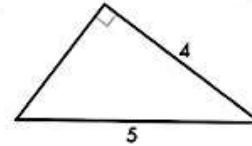
1. $a = ?$



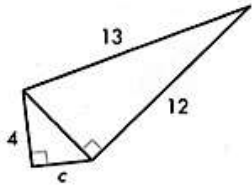
2. $b = ?$



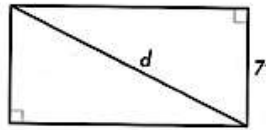
3. What is the perimeter?



4. $c = ?$



5.* The area of the rectangle is 168 sq ft.
 $d = ?$



6. What is the area of the shaded rectangle?

