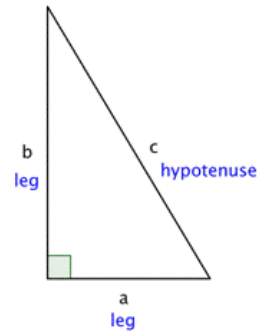**Lesson/Examples for Monday 3/14**
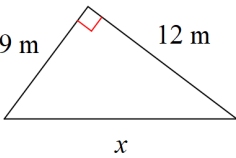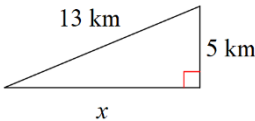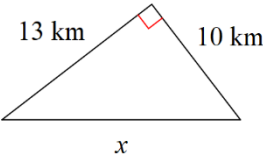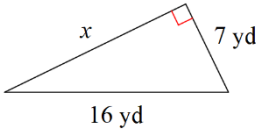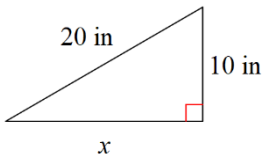
This is a review lesson of Pythagorean Theorem. This was tested way back September during chapter 2, so many students may need to be reminded and practice.

Although you typically see the formula written as: $a^2 + b^2 = c^2$, I always write the formula as $leg^2 + leg^2 = hyp^2$ because students don't always remember that the a and b represent the legs of the right triangle and c represents the hypotenuse.

Drawing a diagram always helps.

Take them through the following scaffolded examples on the board.

	Example	Notes	Solution
1	9 m, 12 m, x	Emphasize identifying which sides are the legs and which side is the hypotenuse (legs create the 90° angle) and the basic set up of the equation. Students will need to be reminded how to square and square root numbers on the calculator.	$x = 15$
2	13 km, 5 km, x	Emphasize the set up of the equation. Students will often incorrectly set up the equation as $5^2 + 13^2 = x^2$ because they think the variable is always by itself. It is important students can identify the legs and hypotenuse in order to set up the equation correctly: $5^2 + x^2 = 13^2$	$x = 12$
3	13 km, 10 km, x	**Have students try setting up the equation on their own first… then go over the set up. Once the equation is set up… have them try solving it on their own… then go over as a class.** This is the first problem where there is a decimal solution. They will need to round their answer to one decimal place (tenths). I remind students of how to round a decimal, but I also tell them if they forget how to round a number, just write down TWO decimal places.	$x = 16.4$
4	x, 7 yd, 16 yd	**Once again, have students set up the equation and solve it on their own first, then go over as a class.**	$x = 14.4$ or $x = 14.38$
Extra	20 in, 10 in, x	This is an EXTRA example. After the 4th example, pass out the assignment. If students still feel like they need an additional example, here is one you can use.	$x = 17.3$ or $x = 17.32$

Leave the examples on the board and pass out the assignment (worksheet). If they don't finish it during class, they can finish it for homework.