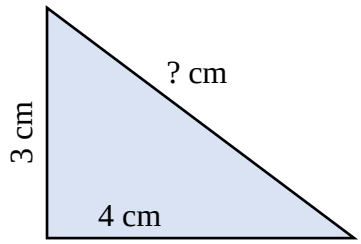
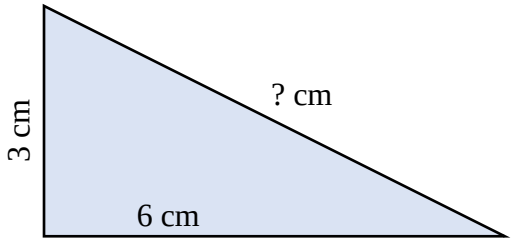
Math 5b, homework 16.

1. What x can be for the following equations:
   $x^2 = 25$; $x^2 = 81$; $x^2 = 10$

2. For the right triangles below find the missing side:





   Draw triangles on paper (use ruler!), measure the third side, check Pythagorean Theorem.
   $(c^2 = a^2 + b^2)$

3. There are nuts in the boxes. The first box contains 6 kg less nuts than the other two together. And in the second, 10 kg less than in the other two together. How many nuts are in the third box?

4. Evaluate (answer is 50.5):

$$90.9 : \left(\left(\frac{0.05}{0.125 - \frac{1}{9}} + \frac{0.03 : 0.1}{0.5 + \frac{1}{4}} \right) : \left(1\frac{8}{15} : 1\frac{8}{15} - \frac{1.5 : 3\frac{3}{4}}{0.25 + 3\frac{1}{4} : 13} \right) - 18\frac{1}{5} \right)$$

5. Rewrite withot parenthasises:
   $a.\ \ 2a(a^2 - 3);$ $b.\ \ -(2x - 5y);$ $c.\ \ (2 - x)(x + 3);$ $d.\ \ (y - 4)(y + 3x + 5);$

6. Two opposite sides of the rectangle are increased by 10%. By what percent did its area increase? Does the result depend on which pair of sides is increased by 10%?

7. All sides of the rectangle are increased by 10%. By what percent did its area increase?

8. I reduced the speed of my car by 20% when I drove to work today due to bad weather. By what percent will my travel time increase?

9. .* Solve (different letters stand for different digits): $FORTY + TEN + TEN = SIXTY$