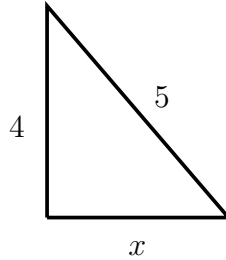**Math 01, Homework 10 on Sections 1.9, 6.5**
**Hand in by Mon, May 16.**

Write all your working out and answers on a separate sheet. It is very important that you show clearly any work you had to do to get the answer. These first ten questions are 2 points each and **the answers are on page 2**.
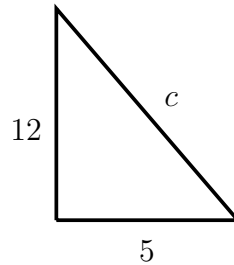
(1) Find x, the length of the missing side:

(2) If the two legs (shorter sides) of a right-angled triangle are of length 8 and 15, find the length of the hypotenuse (the longest side).
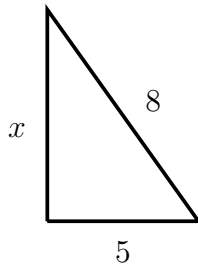
(3) Find x:

(4) Find the length c of the hypotenuse:

(5) Solve: $x + 3 = 12$

(6) Solve: $3x = 12$
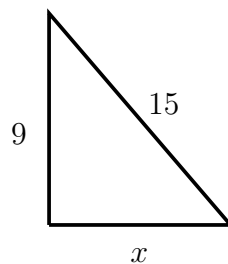
(7) Solve: $4x + 1 = -2$

(8) Solve: $2x + 3x - 7 = 4 - 1$

(9) Solve: $-5x - 1 = -1$
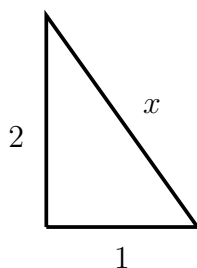
(10) Solve: $4x + 6 = -2x - 2$

As usual, the next eight questions are 2 points each. Show clearly all your working out and reasoning.

(11) Find x, the length of the missing side:

(12) If the two legs of a right-angled triangle are of length 7 and 24, find the length of the hypotenuse.

(13) Find x:

(14) Solve: $4x = 20$

(15) Solve: $3x - 5 = 7$

(16) Solve: $5x - 3x = 4 + 6$

(17) Solve: $-7 = 2x - 4$

(18) Solve: $-4x + 8 = 3x - 13$

Answers to questions (1)-(10):

(1) $x = 3$

(2)   The hypotenuse has length 17

(3) $x = \sqrt{39}$

(4) $c = 13$

(5) $x = 8$

(6) $x = 4$

(7) $x = -\dfrac{3}{4}$

(8) $x = 2$

(9) $x = 0$

(10) $x = -3$