Math 05, Homework 3 on Sections 1.4, 1.5, 1.6, 1.7, 2.1, 2.3, 2.4
due Tue, Oct 6 at the start of class.

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 1 point each and **the answers are on the back**.

(1) Solve: $3x + 3 = -3$

(2) Solve: $8x = 4$

(3) Solve: $7x - 3 - 5x = 10 + 4x + 3$

(4) Solve: $x + 5(x + 2) = 3(3x - 2) + 18$

(5) Say which of these inequalities are true or false:

(a) $5 > 3$, (b) $-3 < -4$, (c) $3 \geq 3$

(6) Graph the solution set for: $5x - 3 < 2x$

(7) Graph the solution set for: $-4x + 10 \leq 2x - 8$

(8) Solve for y: $10x + 2y = 2z$

(9) Is the ordered pair $(3, -2)$ a solution to $3x - 5y = 1$?

(10) Complete the ordered pair $(1, \ )$ so that it is a solution to $3x - 5y = 1$

These next eight questions are 3 points each. Show clearly all your working out and reasoning.

(11) Solve: $-x = x$

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

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

(14) Graph the solution set for: $x - 4 > -3x$

(15) Graph the solution set for: $7x - 2 \geq 4x + 7$

(16) Solve for x: $10x + 2y = 2z$

(17) Is the ordered pair $(-2, 0)$ a solution to $3x - 23y = -6$?

(18) Complete the ordered pair $(\ , 1)$ so that it is a solution to $4x - 6y = 10$

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Answers to questions (1)-(10):

(1) $x = -2$

(2) $x = 1/2$

(3) $x = -8$

(4) $x = -2/3$

(5) **(a)** True, **(b)** False, **(c)** True

(6) Shade the real line to the left of 1 and put a circle or a) at 1

(7) Shade the real line to the right of 3 and put a filled in circle or a [at 3

(8) $y = z - 5x$

(9) No it is not a solution

(10) $(1, 2/5)$