

### Math 05, Homework 4 on Sections 4.1 - 4.3

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Write all your working out and answers on your own notepaper - no need to write the questions. Please use lots of space.

It is very important that you show clearly any work you had to do to get your answers. Just writing the answer down with no work shown is not enough. All 18 questions are worth 2 points each.

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Do these first 10 questions and *check that your answers match the solutions on page 2*. If you don't get the same answers then try to fix them by looking at your notes or the book or asking me. Only do the last eight questions when you are sure you understand the first ten.

- (1) Is  $-4$  a solution of  $-2x^2 + 4 = 7x$  ?
  - (2) Is  $6$  a solution of  $3x - 10 > 9$  ?
  - (3) Is the ordered pair  $(3, -2)$  a solution of  $3x - 5y = 1$  ?
  - (4) Solve:  $3x + 3 = -3$
  - (5) Solve:  $8x = 4$
  - (6) Solve:  $7x - 3 - 5x = 10 + 4x + 3$
  - (7) Solve:  $x + 5(x + 2) = 3(3x - 2) + 18$
  - (8) Solve:  $4(x - 2) - 2 = 4x + 10$
  - (9) If the sum of three consecutive integers is  $42$ , find the three integers.
  - (10) Solve for  $y$ :  $6x + 3y = 4$
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Eight more questions<sup>1</sup>. Show clearly all your working out and reasoning.

- (11) Is  $-1$  a solution of  $5(2 - x) = 15x^2$  ?
- (12) Is the ordered pair  $(-2, 0)$  a solution of  $3x - 23y = -6$  ?
- (13) Solve:  $-x = x$
- (14) Solve:  $x + 3 + 2x = 2 - x - 7$

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<sup>1</sup>questions continue on page 2

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

(16) Solve:  $3x + 4(x + 1) = 7x + 4$

(17) If the sum of three consecutive integers is 63, find the three integers.

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

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**Answers to questions (1)-(10):**

(1) Yes

(2) No

(3) No

(4)  $x = -2$

(5)  $x = 1/2$

(6)  $x = -8$

(7)  $x = -2/3$

(8) There are no solutions

(9) The integers are 13, 14, 15

(10)  $y = -2x + \frac{4}{3}$