Weekly Review #15

Name: _____ Class: _____ Score: ____ /10 $\bar{x}$ = _____

Due Date #1: **Tues. 1/27** Due Date #2: **Fri. 1/30** (Regardless of whether you have class.)

1.) The volume of a cone can be calculated using the formula $V = \frac{1}{3}\pi r^2 h$. Which expression can be used to represent the height, *h*.

(A) $\frac{3V^2}{\pi r}$ (B) $\frac{3V}{\pi r^2}$ (C) $\frac{V}{3\pi r^2}$ (D) $\frac{\sqrt{V}}{3\pi r}$

2.) Trevor and Kassy are comparing their scores on ten Algebra quizzes and determine that they both have the same mean score. They also discover that the standard deviation for Trevor's scores is 17.1 and the standard deviation for Kassy's scores is 4.6. Which statement about the two sets of quiz *must* be true?

(A) The median of Kassy's scores is lower than the median of Trevor's scores.
(B) Trevor's scores are, on average, 12.5 points higher than Kassy's scores.
(C) Trevor's scores are more spread out than Kassy's scores.
(D) Trevor's highest score is greater than Kassy's highest score.

3.) The table below shows the number of grams of carbohydrates, x, and the number of Calories, y, of six different foods. Which equation best represents the line of best fit for this set of data?

Carbohydrates (*x*)	Calories (*y*)
8	120
9.5	138
10	147
6	88
7	108
4	62

(A) $y = 15x$ (C) $y = 0.1x - 0.4$
(B) $y = 0.07x$ (D) $y = 14.1x + 5.8$

4.) If n + 4 represents an odd integer, the next larger odd integer is represented by

(A) n + 2 (B) n + 3 (C) n + 5 (D) n + 6

5.) If 9x + 2a = -3a + 4x, then x equals

(A) 1 (C) -a
(B) (D) -5a

6.) Which is **not** a member of the solution set of $2x - 3y \geq 12$?

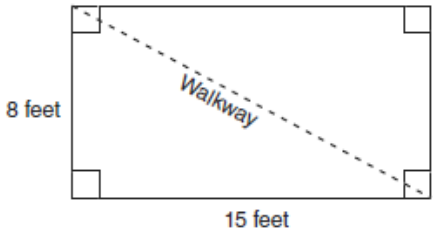
(A) (0,-4) (C) (10,3)

(B) (-3,-6) (D) (6,0)

7.) When $y \leq -x$ is graphed, which quadrant is completely shaded?

(A) I (B) II (C) III (D) IV

8.) Nancy's rectangular garden is represented in the diagram below. Find the length of the diagonal.



9.) Solve the following system of equations algebraically.

$2x = 5y + 8$

$3x + 2y = 31$

10.) Find three consecutive odd integers such that six times the second decreased by twice the first is equal to twenty more than the sum of the second and the third. You must solve this algebraically.