Algebra 2 Test Review 1.3,.14,2.2, and 2.4

Solve the equation or formula for the indicated variable.

1. $T = \frac{2U}{E}$, for U

2. Find the equation of the line passing through the points (–4, 6) and (–5, 3).

Solve the equation.

3. $-y + 10 = -3(y - 9)$

4. $-5y + 3 = -5 + 5y$

Solve the inequality. Graph the solution set. Write in interval notation.

5. $-7 + 5k \leq 3$

6. $34 + 10b \geq 5(2b + 3)$

7. $-4k + 3 \leq -1$

8. $4(3b + 4) < 5 + 12b$

Solve the compound inequality. Graph the solution set. Write in interval notation.

9. $9x + 4 \geq -32$ and $2x - 7 \leq 1$

0. $8x - 5 < 3$ or $3x + 6 > 15$

1. A balloon takes off from 100 feet above sea level and rises at 56 feet per minute. Write an equation that models the height of the balloon. Define the x and y variables.

2. A 3-mi cab ride costs $3.00. A 6-mi cab ride costs $4.50. Find a linear equation that models cost of the cab ride. Define the variables x and y. Then find the cost of a cab ride 8 mi ride

Solve for y and graph

3. $4x - 2y - 16 = 0$

4. $3x + 5y - 15 = 0$

5. The sum of 3 consecutive numbers is 39. What are the three numbers?

Determine if the following data sets have strong, weak or no correlation. Explain. If reasonable, write an equation.

6. {(0,11), (2,8), (3,7), (7,2), (8,0)}

7. {(-15,8), (-8,-7), (-3,0), (0,5), (7,-3)}