Algebra I

Name: _____

Unit 2a Quiz Review

Solve each equation and justify each step using a property of equality.

1) $-21 = 3k + 4k$

2) $-7(x + 7) = -84$

3) $2(1 + 7k) = -8(2k - 4)$

Solve each inequality.

4) $6 > 1 - 5n + 5$

5) $115 \leq -5(1 - 3x)$

6) $-9 - 8x \leq 3(x + 8)$

Literal Equations: Rewrite each equation in terms of the indicated (Letter).

7. $V = LWH$ *(L)*

8. $P = 2(L + W)$ *(W)*

9 $\frac{x + y}{3} = 5$ (x)

10. $d = rt$ *(r)*

11. $2x - 3y = 8$ *(y)*

10 $A = (1/2)h(b_1 + b_2)$ (b)

Translating Word Problems to Equations & Inequalities

Set up the equation to represent the problem & solve. *NO CREDIT WITHOUT AN EQUATION!*

13. When 5 is added to three times a number, the result is 50. Find the number.

14. The sum of 3 consecutive integers is 192. Find the 3 numbers.

15. You are trying to save $45 a week to buy a new video game. During the last 4 weeks you have saved $35, $55, $43, and $39. How much do you need to save this week to average $45 for the 5 weeks?

16. The width of a rectangle is 14 inches more than the length. The perimeter is 120. Find the length and width of the rectangle.

17. The sum of twice a number and nine is at most thirty-five. Solve to find the possible numbers. Write your answer as an inequality.

18. Twelve subtracted from a number is greater than or equal to forty. Solve to find the possible numbers. Write your answer as an inequality.