

Unit 2A Quiz Review

Date _____ Period _____

Solve each equation and justify your solution with properties of equalities.

1) $15 = 1 - 3n + 5n$

2) $n - 2n = 8$

3) $-8(b + 6) + 4 = -92$

4) $-3(7n - 1) = 171$

5) $20 + 8m = 3(6 + 3m)$

6) $5v - 4 = -6(v + 8)$

Solve each inequality.

7) $-87 < 3(-5 + 4v)$

8) $2 + 8(2 - 4x) \leq -238$

9) $-21 \leq -k - 6k$

10) $0 > -7k + 5k$

$$11) -7x - 2 \leq -4 - 8x$$

$$12) 3 - 5x < 6 - 4x$$

Solve each equation for the indicated variable.

$$13) z = x - m, \text{ for } x$$

$$14) g = x + c, \text{ for } x$$

$$15) z = \frac{-4 - 8a}{b}, \text{ for } a$$

$$16) -4x + 3 = -2w + v, \text{ for } x$$

$$17) ca = d + r, \text{ for } a$$

$$18) xm = n + p, \text{ for } x$$

For the following word problems, create an equation that models the problem. Then solve your equation,

19) The sum of two consecutive integers is -23. What are the two integers?

20) The sum of two consecutive even integers is 166. What is the largest integer?

21) The sum of three consecutive integers is 90. What are the three integers?

22) The sum of two consecutive integers is 225. Find the two integers.

23) Three times a number decreased by 4 is -28. Find the number.

24) The sum of double a number and 7 and 31. Find the number.

25) The quotient of a number and 4 is -4. Find the number.

26) The length of a rectangle is 3 less than 4 times the width. The perimeter is 34. Find the length and width.