2.1.D1 ~ Linear Situations

Past due on_____ Period____

If necessary, combine like terms on each side of the equation. Then use inverse operations to solve the equation. Show all work.

1) $-4v + 15 = -27 - v$

2) $15 + 17x = 18x - 5$

3) $2n + 9 + 7n = 14 + 10n$

4) $13p - 10 - 7p = p - 35$

Identify the set or sets to which each number belongs: natural numbers (N), whole numbers (W), integers (Z), rational numbers (Q), irrational numbers (I), or real numbers (R).
Refer to the 14.1 example "Defining Sets of Numbers in the Real Number System" in the Chapter 14 Summary.

5) $\frac{7}{12}$

6) $-\frac{24}{3}$

7) $\sqrt{50}$

8) 0

9) -5

10) 5

Identify each property shown as: commutative, associative, or distributive.
Refer to the 14.2 example "Understanding the Properties of Real Numbers" in the Chapter 14 Summary.

11) $(2a \cdot 3b) \cdot 5c = (3b \cdot 2a) \cdot 5c$

12) $6(12 - 2) = 6\times12 - 6\times2$

13) $9m + 4n = 4n + 9m$

14) $(a + b) + c = a + (b + c)$

Identify the independent and dependent quantities (including units) in each problem situation. Assign a variable to each quantity. Then write a function to represent the problem situation. Refer to the 2.1 example "Identifying Dependent & Independent Quantities and Writing an Expression" in the Chapter 2 Summary.

15) Nathan is riding his scooter to school at a rate of 6 miles per hour.

16) Mario is stuffing envelopes with invitations to the school's Spring Carnival. He stuffs 5 envelopes each minute.

17) Shawna plays on the varsity soccer team. She averages 4 goals per game.

18) What function family is represented in problems 11 – 13?