

You will not be able to use a calculator on the chapter test, so be sure NOT to use a calculator when completing this review.

Define each of the following terms or properties and give an example for each.

sum

product

difference

quotient

coefficient

like terms

Distributive Property

algebraic expression

Additive Identity Property

Commutative Property of Addition

Associative Property of Multiplication

Multiplicative Identity Property

Symmetric Property

Transitive Property

Define each of the following terms or properties and give an example for each.

Multiplicative Property of Zero

Substitution Property

Reflexive Property

Multiplicative Inverse Property

reciprocal

variable

Order of Operations

Evaluate or simplify each question by using the order of operations. SHOW ALL WORK!

1.  $ab - c + d$  when  $a = -3, b = -5, c = -2, d = -20$

2.  $\frac{b}{a} + \frac{r}{t}$  when  $a = 5, b = 2, r = 6, t = 7$

3.  $\frac{2x^3}{(x-y)^3}$  when  $x = -1, y = 2$

4.  $-4 + 6 \div 2 \cdot 5 - 3$

5.  $[7 - (4 + 5)] + [2^3 - 4(-5 + 5)]$

6.  $3^2 - 10 + 4 \cdot 3 - 20 \div 5$

Simplify each expression, and reduce all answers to lowest terms. SHOW ALL WORK!  
Draw a number line if necessary.

7.  $-9m - 5m =$

8.  $-8y^2 + 3y^2 =$

9.  $5n - 11n =$

10.  $-4c^3 + 12c^3 =$

11.  $-60b + 60b =$

12.  $3g - (-10g) =$

13.  $3x - \frac{3}{5}x =$

14.  $\frac{-5}{6}p + \frac{-4}{6}p =$

15.  $\frac{4}{9}w - \frac{2}{3}w =$

16.  $-3(5 - x) =$

17.  $2x(3x + 8) =$

18.  $9(-7k + 3) =$

19.  $-3d + 5h - 4d - 6h + 2d =$

20.  $10v^2 - 5v + 3v - 14v^2 - 9 =$

21.  $3 + 4(5q + 2) + 7q =$

22.  $5z - 2(z + 4) =$

23.  $\frac{2}{9}n - n + \frac{11}{10}r - \frac{3}{5}r =$

24.  $\frac{7}{8}h - \frac{3}{2}h + \frac{1}{6}h =$

Simplify each expression, and reduce all answers to lowest terms. SHOW ALL WORK!  
Draw a number line if necessary.

25.  $6y - (-y) + 10 - 12y - (-4) =$

26.  $\frac{8}{3}b^2 - \frac{4}{3}b + \frac{2}{5}b - \frac{7}{12}b^2 =$

27.  $9.2pq - 4.1p + 3.2q - 5.4p - (-3.8pq) - 4q =$

28.  $7n - 2n(3n + 1) =$

29. Find the perimeter of a rectangle with dimensions of  $1\frac{3}{4}$  ft. by  $2\frac{1}{2}$  ft.