Summer Packet
For Algebra 12

Name _____

Date _____

Teacher _____

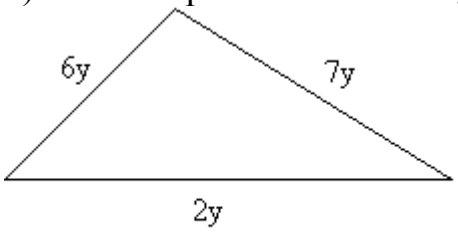
Section 1.1

Evaluate the expression.

1) 12x when x = 5

2) 7 – y when y = 22

3) Find the perimeter of the figure.



4) $2x^2$ when x = 3

5) - 3x + y when x = -2 and y = - 5

Section 1.2

Write the expression in exponential form.

6) x • x • x • x • x • x • x • x • x

7) z to the seventh power

8) $(-4)(-m)(-m)(-m)$

9) 2(x)(x)

Section 1.3

Evaluate the expression.

10) 3^x when x is 5

11) $4x^3$ when x is 2

Evaluate the expression.

11) $10 - 30 \div 6 + 7$

12) $[(9-3) \div 3] - 7$

Section 1.4

Check whether the given number is a solution to the equation.

13) $2x^2 + 5 = 37$, when $x = -4$

13) $7x - 3x = 45 - 4x$, when $x = 3$

Check whether the given number is a solution to the inequality.

14) $x^2 - 3 \geq 10$, when $x = -2$

Section 1.5

Write the algebraic equation or inequality for the given sentence.

15) Four less than a number, divided by six is nine.

16) Eleven more than a number is greater than or equal to twenty.

Section 2.1

Put the following numbers in order.

17) 0.46, -4.06, -0.45, 4.6, 0

18) $\frac{3}{5},\ -\frac{1}{5},\ \frac{5}{3},\ \frac{1}{2},\ -\frac{2}{5}$

Evaluate the expression.

19) $|-21.5|$

20) $-\left|-\frac{3}{5}\right|$

Section 2.2 and 2.3

Simplify.

21) $-9 + -17 + 16$

22) $-11 + -5 + 18$

23) $-4 - 6$

24) $8 - (-2)$

25) $3 - 9 - 8$

Sections 2.5 and 2.7

Simplify.

26) $(-8)(-2)(-6)$

27) $(4)(-1)(-5)$

28) $\frac{-28}{-14}$

29) $-50 \div 5$

Section 2.6

Use the distributive property to simplify the expression.

30) $-5\,(8x - 6)$

31) $9\,(t + 2)$

32) $-7\,(x + 4)$

33) $x(x - 4)$

Section 3.1 to 3.3

Solve the following equations.

34) $x = 7 - 13$

35) $x + 25 = 9$

36) $x - 13 = 12$

37) $6x = 96$

38) $\frac{4}{5}x = 28$

39) $6x + 9 = 39$

40) $3(x + 7) = 51$

41) $-5x - 7x = 72$

Basic Pre-algebra Skills

42) List all the factors of 24

Fill in the blank with either the < or the > symbol:

43) -4 ____ 5

Basic Pre-algebra Skills (continued)
Convert to an improper fraction.

44) $2\frac{4}{5} =$

Evaluate:

45) $\frac{8}{9} - \frac{5}{8}$

46) $\frac{3}{5} + \frac{5}{6}$

47) $\frac{7}{9} \times \frac{3}{5}$

48) $\frac{4}{5} \div \frac{10}{6}$

49) Write 0.35 as a **fraction** in simplest form.

0.35 = _____

50) Write 0.42 as a **percent**.

0.42 = _____