Write a variable expression for each word phrase.

1.) The 8 more than the product of a number and 4.

2.) The 9 less than the sum of k and 7.

3.) The difference between 12 and b.

4.) The quotient of f and 11.

5.) Two times the quantity 8 plus w.

Simplify each expression.

1.) $3 \times 2^2 + 16 \div 4 - 3$

2.) $8 + [(24 \div 4 \times 10) - 2]$

3.) $12 - 3(8^2 + 2^3)$

4.) $68 - 12 \div 2 \div 3 \times 2^5$

Evaluate the expression.

1.) $8a + 2(b - c)^2$, for a = 3, b = 7, and c = 4

2.) $3x - 2y - y(9 - 4)$, for x = 4 and y = 2

3.) $def + 6e^3$, for d = 6, e = 2, f = 3

4.) $\frac{ab}{2} - 3$, for a = 7, b = 8

Compare. Use >, <, or = to complete each statement.

1.) -6.98 _____ -6.99

2.) -3 _____ |-8|

3.) |-12| _____ |-5|

4.) 2 _____ -|-9|

Determine whether each number is rational or irrational. In addition, name the set(s) of numbers to which each number belongs.

1.) 6.779

2.) 0.567567567…

3.) 9

4.) 0

5.) -3

6.) π

7.) $\sqrt{16}$

8.) $\sqrt{50}$

9.) ½

Find each sum.

1.) -8 + (-5)

2.) 9 + 3

3.) -6 + 8

4.) 4 + (-11)

FInd the difference of each.

1.) 8 - 12

2.) -9 - 4

3.) 3 - (-5)

4.) -12 - (-6)

Find each.

1.) 8(-5)

2.) (7)(-3)^2

3.) (-9)(4)

4.) (-8)(-2)

5.) $\frac{-2}{3} \div \frac{3}{4}$

6.) 84 ÷ (-12)

7.) $\frac{240}{(-2)(-5)}$

Evaluate each expression.

1.) $-ab^2$ for a = 2 and b = -3

2.) $-(-w)^2$ for w = 3

3.) $-x^3 + xy$ for x = 4 and y = -5

Simplify each expression.

1.) ⅖(5a + 45)

2.) 6(x + 3) - 4x

3.) -8 - 4(3b + 7)

4.) $-(4s^2 + 1)$

Name the property that each equation illustrates.

1.) $(4 \cdot 5) \cdot 2 = 4 \cdot (5 \cdot 2)$

2.) $23 + 54 + 27 = 23 + 27 + 54$

3.) $5 + 0 = 5$

4.) $\frac{2}{3}(3/2) = 1$

5.) $3(a + b) = 3a + 3b$

Label each quadrant. Next, plot the points below.

1.) A (6, -4)
2.) B (-7, 2)
3.) C (0, 8)
4.) D (3, 9)
5.) E (-7, -1)
6.) F (-4, 0)