Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_

**Homework Work Lesson 4**

1. Directions: Write an algebraic expression for each.

**a) five less than three times a number b) eight less than the quotient of a number and two**

**c) nine times the sum of a number and fifteen d) The sum of twice a number and seven**

**e) one plus the product of a number and five f) A number less than twenty five**

**g) The sum of half a number and four h) seven less than a third of the sum of a number and two**

1. Directions: Write two written expression for each. Use the key vocabulary.

a) b) 

c)  d)

e)  f) 

g) 

3) Enrichment

**a. SOLAR SYSTEM** It takes Earth about 365 days to orbit the sun. It takes Uranus about 85 times as long. Write a numerical expression to describe the number of days it takes Uranus to orbit the sun.

**b. TECHNOLOGY** There are 1024 bytes in a kilobyte. Write an algebraic expression that describes the number of bytes in a computer chip with *n* kilobytes.

**c. THEATER** Howard Hughes, Professor Emeritus of Texas Wesleyan College, reportedly attended a record 6136 theatrical shows. Write an algebraic expression to represent the average number of theater shows attended if he accumulated the record over *y* years. Use the expression to find the average number of shows Mr. Hughes attended per year if he went to the theater for 31 years.

**d. TIDES** The difference between high and low tides along the Maine coast in

November is 19 feet on Monday and *x* feet on Tuesday. Write an algebraic expression toshow the average rise and fall of the tidefor Monday and Tuesday.

**For Exercises e-g, use the following information.**

A toy manufacturer produces a set of blocks that can be used by children to build play structures. The product packaging team is analyzing different arrangements for packaging their blocks. One idea they have is to arrange the blocks in the shape of a cube, with *b* blocks along one edge.

**e.** Write an algebraic expression representing the total number of blocks packaged in a cube measuring *b* blocks on one edge.

**f.** The packaging team decides to take one layer of blocks off the top of this package. Write an algebraic expression representing the number of blocks in the top layer of the package.

**g.** The team finally decides that their favorite package arrangement is to take 2 layers of blocks off the top of a cube measuring *b* blocks along one edge. Write an algebraic expression representing the number of blocks left behind after the top two layers are removed.

Answer key

1. Directions: Write an algebraic expression for each.

**a) five less than three times a number b) eight less than the quotient of a number and two**

**3n-5 **

**c) nine times the sum of a number and fifteen d) The sum of twice a number and seven**

**9(n+15) 2n+7**

**e) one plus the product of a number and five f) A number less than twenty five**

**1+ 5n 25-n**

**g) The sum of half a number and four h) seven less than a third of the sum of a number and two**

** **

1. Directions: Write two written expression for each. Use the key vocabulary.

a) b) 

Answers will vary. Possible answers listed on power point

a

c)  d)

e)  f) 

g) 

3) Enrichment

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