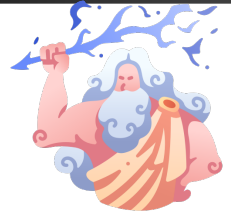


Name: \_\_\_\_\_



# Translating Variable Equations

**Part I** Write a statement for each of the following algebraic expressions:

1.)  $4x + 4 = 8$

5.)  $2x^2 = 72$

2.)  $-3 - 10w = 12$

6.)  $\frac{15x}{4} = \frac{1}{2}$

3.)  $16m + 2 = 40$

7.)  $-1 - 2x = 0$

4.)  $3 + \frac{x}{5} = -1$

8.)  $\frac{-x}{2x + 1} = 5$

**Part II** Write an algebraic expression for each of the following statements:

9.) *seven times y equals 98*

13.) *nine is the sum of y squared and one*

10.) *10 less than the product of 4 and x squared is 65*

14.) *Three g more than negative nine equals seven times g*

11.) *the sum of twice x and one quarter of x is 13*

15.) *One third of the difference of x and eleven is equal to zero*

12.) *two-thirds of x decreased by 1 is 96*

16.) *The quotient of 3 and j decreased by the product of 17 and k equals 51*

## ANSWER KEY

1.)  $4x$  increased by 4 is 8

5.) Twice  $x$  squared equals 72

2.) The difference of negative 3 and ten times  $w$  equals 12

6.) The quotient of 15 times  $x$  and 4 is one half

3.) The product of 16 and  $m$  increased by 2 is 40

7.) Negative  $2x$  less than negative one is zero

4.) The sum of three and the quotient of  $x$  and 5 equals negative 1

8.) The quotient of negative  $x$  and the sum of twice  $x$  and one equals five

9.)  $7y = 98$

13.)  $9 = y^2 + 1$

10.)  $4x^2 = 65$

14.)  $-9 + 3g = 7g$

11.)  $2x + \frac{x}{4} = 13$

15.)  $\frac{x - 11}{3} = 0$

12.)  $\frac{2}{3}x - 1 = 96$

16.)  $\frac{3}{j} - 17k = 51$