

## Introduction to exponents

1. Write the following multiplication problems using an exponent.

a)  $5 \cdot 5 \cdot 5 \cdot 5 = 5^4$

b)  $3 \cdot 3 \cdot 3 \cdot 3 =$

c)  $2x \cdot 2x \cdot 2x \cdot 2x \cdot 2x =$

d)  $(-3) \cdot (-3) \cdot (-3) \cdot (-3) =$

e)  $(x+1) \cdot (x+1) \cdot (x+1) \cdot (x+1) =$

f)  $(x+y-z) \cdot (x+y-z) =$

2. Write the following math statements as word statements.

a)  $3^2 \rightarrow$  "Three raised to the second power."  
-OR-  
"Three squared"

b)  $4^3$

c)  $2^4$

d)  $x^5$

e)  $2 + 3^2$

f)  $-2 - 2^3$

3. Perform the multiplication.

a)  $2^2 \cdot 2^3$

b)  $x^2 \cdot x^3$

c)  $y^3 \cdot y^5$

d)  $3 \cdot 3^4$

e)  $3^0 \cdot 3^2$

f)  $0 \cdot 3^2$

g)  $(523)^0$

h)  $x \cdot x$

i)  $a \cdot a \cdot a$

4. Find the following sums.

a)  $x + x$

b)  $a + a + a$

c)  $2 + 2 + 2$

d)  $x^2 + x^2$

e)  $a^2 + a^2 + a^2$

f)  $2^2 + 2^2 + 2^2$