x^6 means x multiplied by itself 6 times

3 ^ 4 means 3•3•3•3

$m^6 = m• m• m• m• m• m$

$2^8 = \underline{2•2•2•2•2•2•2•2} = \underline{256}$

$4^3 = \underline{4•4•4} = \underline{64}$

$9^2 = \underline{9•9} = \underline{81}$

$2 \wedge 4 = \underline{2•2•2•2} = \underline{16}$

PRACTICE

$2^4 = 2•2•2•2 = 16$ $5^4 = 5•5•5•5 = 625$

$2^3 = 2•2•2 = 8$ $5^3 = 5•5•5 = 125$

$2^2 = 2•2 = 4$ $5^2 = 5•5 = 25$

$2^1 = 2 = 2$ $5^1 = 5$

$2^0 = 1$ $5^0 = 1$

Any number with an exponent of 0 =

$$x^0$$

A "Perfect Square" is a number multiplied by itself. It has <u>nothing</u> to do with whether or not the number is odd or even.

$1^2 = 1•1 = \boxed{1}$ $6^2 = 6•6 = \boxed{36}$

$2^2 = 2•2 = \boxed{4}$ $7^2 = 7•7 = \boxed{49}$

$3^2 = 3•3 = \boxed{9}$ $8^2 = 8•8 = \boxed{64}$

$4^2 = 4•4 = \boxed{16}$ $9^2 = 9•9 = \boxed{81}$

$5^2 = 5•5 = \boxed{25}$ $10^2 = 10•10 = \boxed{100}$

PERFECT SQUARE

EXPONENT NOTES

Exponent

3^4 $= 3•3•3•3$

Base   9 • 9

81

Power or value means the answer

We can say 2^2 as 2 to the second power or 2 squared
We can say 2^3 as 2 to the third power or 2 cubed

VOCABULARY