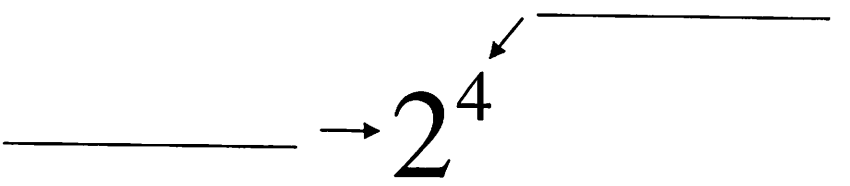
Exponent Practice Name _____

Multiplication is shorthand for **Addition**

$$\underbrace{6+6+6+6+6+6+6}_{7\bullet 6=42}=42$$

Exponents are shorthand for **Multiplication**

$$6\bullet 6\bullet 6\bullet 6\bullet 6\bullet 6\bullet 6=6^7=279{,}936$$



Exponent means _____

Base means _____

Expand.

1. 4^3
2. 8^5
3. $2^4\bullet 5^3$

Write the following using Exponents

4. $(3)(3)(3)(3)(3)$
5. $7\bullet 7\bullet 7$
6. $(9)(9)(9)+(6)(6)$

Evaluate the following using Order of Operations.

7. $5^2+3\bullet 4$
8. $\left(4^2+3^3\right)-5$
9. $4^3\div(2^4-12)$

Exponent Practice Name Key

Multiplication is shorthand for **Addition**

$$\underbrace{6+6+6+6+6+6+6}_{7\bullet 6}=42$$

$$7\bullet 6=42$$

Exponents are shorthand for **Multiplication**

$$6\bullet 6\bullet 6\bullet 6\bullet 6\bullet 6\bullet 6=6^7=279{,}936$$

exponent

base $\rightarrow 2^4$

Exponent means number of time base is multiplied by itself

Base means the number being multiplied

Expand.

1. 4^3

$4\cdot 4\cdot 4$

2. 8^5

$(8)(8)(8)(8)(8)$

3. $2^4\bullet 5^3$

$(2)(2)(2)(2)(5)(5)(5)$

Write the following using Exponents

4. $(3)(3)(3)(3)(3)$

3^5

5. $7\bullet 7\bullet 7$

7^3

6. $(9)(9)(9)+(6)(6)$

9^3+6^2

Evaluate the following using Order of Operations.

7. $5^2+3\bullet 4$

$25+3\cdot 4$

$25+12$

37

8. $(4^2+3^3)-5$

$(16+27)-5$

$43-5$

38

9. $4^3\div(2^4-12)$

$4^3\div(16-12)$

$4^3\div 4$

$64\div 4$

16