

Exponents

Base Number ← 4^3 ↘ Exponent

- Exponents show repeated multiplication.
- Exponents represents how many times a number (Base) is multiplied by itself.

<u>Exponent Form</u> 4^3	<u>Word Form</u> Four to the power of three
<u>Expanded Form</u> $4 \cdot 4 \cdot 4$	<u>Standard Form</u> 64

- Incorrect ways to complete exponents are:
 - Example A: $4 + 3 = 7$
 - Example B: $4 \cdot 3 = 12$
 - Example C: Counting by 4s.
↑↑Those are NO-NOs!!!!!!!!!!!!!! ↑↑
- Be careful, any number raised to the first power is itself.
 - Example A: $10^1 = 10$

- Example B: $4^1 = 4$
- Any number raised to the zero is always 1
 - Example A: $10^0 = 1$
 - Example B: $5^0 = 1$
- Other examples:
 - Example A: $10^4 = 10,000$
 - Example B: $10^6 = 1,000,000$
 - Example C: $2 \times 10^4 = 20,000$
 - Example D: $20 \times 10^4 = 200,000$
 - $20 \times 10,000 = 200,000 \rightarrow$ Showing work!

Practice Problems

1. Complete Chart

<u>Exponent Form</u>	<u>Word Form</u> eight to the power of two
<u>Expanded Form</u>	<u>Standard Form</u>

2. Complete Chart

<u>Exponent Form</u> 5^2	<u>Word Form</u>
<u>Expanded Form</u>	<u>Standard Form</u>