

Exponent

While working in a group make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.

Definition Exponent *For any positive number b that is not equal to 1, and any whole, non-zero number n , $b^n = b \times b \times b \dots \times b$ where there are n copies of b in the product.*

1. Expand 4^3

2. Expand $(1 + 3)^3$

3. Expand $(x + 3)^3$

4. $20 \div 2^2 \times 3 + 1$

Property Exponent For any number b and all whole numbers m and n , except for the case where the base and exponents are both zero:

$$b^m \times b^n = b^{m+n}$$

$$b^m \div b^n = b^{m-n}$$

5. Simplify $2^7 \times 3^4 \div 2^2$