

Name _____ Date _____

Number
Unit 3 Line Master 1a

Integer Bases and Zero Exponents

1. What about 0?

Choose a number to use as the base. Complete the table.

Power	Standard Form
_____ ⁴	
_____ ³	
_____ ²	
_____ ¹	
_____ ⁰	

2. Negative or Not?

Complete the table.

Power	Base	Exponent	Expanded Form	Standard Form
2^3	2	3		
$(-2)^3$				
$-(2^3)$				
-2^3				
$-(-2)^3$				

3. Use the values of these powers to sort them in the table below.

$-(1^{10})$ 1^{10} -1^2 $(-1)^3$ $-(-1^6)$ $-(1^9)$ $(-1)^{100}$

Positive	Negative

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Integer Bases and Zero Exponents

4. Calculate:

- a) the side length of a square with an area of 196 cm^2 .
- b) the edge length of a cube with a volume of 64 cm^3 .

Extension

5. What is the ones digit of the value of 3^{1992} ? How can you find out?

Hint: Use what you know to figure out what you don't know.