

Name \_\_\_\_\_ Date \_\_\_\_\_

**Understanding Positive and Negative Exponents**

|   | Scientific Notation | Decimal | Fraction        | Expanded Form |
|---|---------------------|---------|-----------------|---------------|
| 1 | $10^2$              | 100.0   | $\frac{100}{1}$ | One hundred   |
| 2 | $10^1$              |         |                 |               |
| 3 | $10^0$              |         |                 |               |
| 4 | $10^{-1}$           |         |                 |               |
| 5 | $10^{-2}$           |         |                 |               |
| 6 | $10^{-3}$           |         |                 |               |
| 7 | $10^{-4}$           |         |                 |               |

8. What do you notice about the change from number one to number six? What is the pattern?

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|    | Scientific Notation | Decimal | Fraction      | Expanded Form |
|----|---------------------|---------|---------------|---------------|
| 8  | $2^3$               | 8.0     | $\frac{8}{1}$ | Eight         |
| 9  | $2^2$               |         |               |               |
| 10 | $2^1$               |         |               |               |
| 11 | $2^0$               |         |               |               |
| 12 | $2^{-1}$            |         |               |               |
| 13 | $2^{-2}$            |         |               |               |
| 14 | $2^{-3}$            |         |               |               |

15. Thinking Question -  $10^0$  could be rewritten as  $1(10^0)$ . How would you rewrite  $2^0$  as a fraction according to the example given in the previous sentence? Show your work on the back of this page.