

**STUDY LINK**  
**7•1**

# Exponents



In exponential notation, the **exponent** tells how many times the **base** is used as a factor. For example,  $6^4 = 6 * 6 * 6 * 6 = 1,296$ . The base is 6, and the exponent is 4. The product is written as 1,296 in standard notation.

1. Complete the table.

Exponential Notation	Base	Exponent	Repeated Factors	Standard Notation
$9^3$	9	3	$9 * 9 * 9$	729
	4	5		
			$7 * 7 * 7 * 7$	
			$10 * 10 * 10 * 10 * 10 * 10$	
				262,144

Describe the mistake. Then find the correct solution.

2.  $6^3 = 6 + 3 = 9$

Mistake: \_\_\_\_\_

Correct solution: \_\_\_\_\_

3.  $2^9 = 9 + 9 = 18$

Mistake: \_\_\_\_\_

Correct solution: \_\_\_\_\_

4.  $4^7 = 4 * 7 = 28$

Mistake: \_\_\_\_\_

Correct solution: \_\_\_\_\_

**Practice**

5.  $351.82 + n = 366.52$

$n =$  \_\_\_\_\_

6.  $100 - r = 99.52$

$r =$  \_\_\_\_\_

7.  $\frac{4}{7} + u = \frac{19}{7}$

$u =$  \_\_\_\_\_

