

**Master 2.3**

**Extra Practice**

**Lesson 2.1: What Is a Power?**

- Identify the base of each power.  
 a)  $6^3$       b)  $2^7$       c)  $(-5)^4$       d)  $7^0$
- Use repeated multiplication to show why  $3^5$  is not the same as  $5^3$ . (Include standard form)
- Complete this table.

Power	Base	Exponent	Repeated Multiplication	Standard Form
$4^4$				
$10^3$				
	14	2		
			$1 \times 1 \times 1 \times 1 \times 1$	
	9			531 441
			$5 \times 5 \times 5 \times 5 \times 5$	

- Write each product as a power, then evaluate (standard form).  
 a)  $6 \times 6$       b)  $3 \times 3 \times 3 \times 3 \times 3 \times 3$   
 c)  $10 \times 10 \times 10 \times 10$       d)  $8 \times 8 \times 8$
- Find the missing exponent. (Show work)  
 a)  $7^{\square} = 16\ 807$     b)  $2^{\square} = 32$     c)  $2^{\square} = 128$     d)  $3^{\square} = 81$     e)  $9^{\square} = 81$
- Find the missing base.  
 a)  $\underline{\hspace{1cm}}^3 = 64$     b)  $\underline{\hspace{1cm}}^2 = 49$     c)  $\underline{\hspace{1cm}}^5 = 1$     d)  $\underline{\hspace{1cm}}^3 = 729$
- Evaluate each of the following. What do you notice?  
 a)  $10^2$       b)  $10^3$       c)  $10^5$       d)  $10^6$
- Place a  $<$ ,  $>$  or  $=$  in the box. (Show your calculations)  
 a)  $2^7 \square 6^3$     b)  $4^3 \square 2^6$     c)  $9^3 \square 3^5$     d)  $7^3 \square 6^5$