

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
			$5 \times 5 \times 5 \times 5 \times 5 \times 5$	

- Write each product as a power, then evaluate (standard form).
a) 6×6 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) $7^3 \square 6^5$