Name _____ Date _____

Master 2.3

Extra Practice

Lesson 2.1: What Is a Power?

1. Identify the base of each power.
a) 6^3 **b)** 2^7 **c)** $(-5)^4$ **d)** 7^0

2. Use repeated multiplication to show why 3^5 is not the same as 5^3. (Include standard form)

3. 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
			5x5x5x5x5x5x5	

4. 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)** $8 \times 8 \times 8$

5. Find the missing exponent. (Show work)
a) $7^{\square} = 16\,807$ **b)** $2^{\square} = 32$ **c)** $2^{\square} = 128$ **d)** $3^{\square} = 81$ **e)** $9^{\square} = 81$

6. Find the missing base.
a) $____^3 = 64$ **b)** $___^2 = 49$ **c)** $___^5 = 1$ **d)** $___^3 = 729$

7. Evaluate each of the following. What do you notice?
a) 10^2 **b)** 10^3 **c)** 10^5 **d)** 10^6

8. 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) $7^3 \square 6^5$

The right to reproduce or modify this page is restricted to purchasing schools.
This page may have been modified from its original. Copyright © 2009 Pearson Education Canada