

Name _____ Period _____ Date _____

Exponents: Positive and Negative Bases

Write out what each exponent means and write the final answer.

Section 1

Example: $2^3 = 2 \times 2 \times 2 = 8$

1. 5^2

2. 7^3

3. 6^4

4. 7^5

5. 2^6

6. 4^3

Section 2

Example: $-2^3 = -1 \times 2 \times 2 \times 2 = -8$

1. -5^2

2. -7^3

3. -6^4

4. -7^5

5. -2^6

6. -4^3

Section 3

Example 1: $(-2)^3 = (-2) \times (-2) \times (-2) = -8$

Example 2: $(-2)^4 = (-2) \times (-2) \times (-2) \times (-2) = 16$

1. $(-5)^2$

2. $(-7)^3$

3. $(-6)^4$

4. $(-7)^5$

5. $(-2)^6$

6. $(-4)^3$

Name ANSWER KEY Period _____ Date _____

Exponents: Positive and Negative Bases

Write out what each exponent means and write the final answer.

Section 1

Example: $2^3 = 2 \times 2 \times 2 = 8$

1. 5^2

$$5 \times 5$$

$$25$$

2. 7^3

$$7 \times 7 \times 7$$

$$343$$

3. 6^4

$$6 \times 6 \times 6 \times 6$$

$$1,296$$

4. 7^5

$$7 \times 7 \times 7 \times 7 \times 7$$

$$16,807$$

5. 2^6

$$2 \times 2 \times 2 \times 2 \times 2 \times 2$$

$$64$$

6. 4^3

$$4 \times 4 \times 4$$

$$64$$

Section 2

Example: $-2^3 = -1 \times 2 \times 2 \times 2 = -8$

1. -5^2

$$-1 \times 5 \times 5$$

$$-25$$

2. -7^3

$$-1 \times 7 \times 7 \times 7$$

$$-343$$

3. -6^4

$$-1 \times 6 \times 6 \times 6 \times 6$$

$$-1,296$$

4. -7^5

$$-1 \times 7 \times 7 \times 7 \times 7 \times 7$$

$$-16,807$$

5. -2^6

$$-1 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$$

$$-64$$

6. -4^3

$$-1 \times 4 \times 4 \times 4$$

$$-64$$

Section 3

Example 1: $(-2)^3 = (-2) \times (-2) \times (-2) = -8$

Example 2: $(-2)^4 = (-2) \times (-2) \times (-2) \times (-2) = 16$

1. $(-5)^2$

$$(-5)(-5)$$

$$25$$

2. $(-7)^3$

$$(-7)(-7)(-7)$$

$$-343$$

3. $(-6)^4$

$$(-6)(-6)(-6)(-6)$$

$$1,296$$

4. $(-7)^5$

$$(-7)(-7)(-7)(-7)(-7)$$

$$-16,807$$

5. $(-2)^6$

$$(-2)(-2)(-2)(-2)(-2)(-2)$$

$$64$$

6. $(-4)^3$

$$(-4)(-4)(-4)$$

$$-64$$