

Name: \_\_\_\_\_

Period: \_\_\_\_\_

Review For Unit 1 Quiz

Write each expression using exponents

1.  $(-5)(-5)(-5)(-5)$   $(-5)^4$

2.  $3 \cdot 3 \cdot p \cdot p \cdot p$   $3^2 p^3$

3.  $m \cdot m \cdot m \cdot m \cdot m$   $m^5$

Evaluate each expression.

4.  $(-9)^4$   $(-9)(-9)(-9)(-9)$   
6561

7.  $(-4)^2$  16

5.  $(\frac{1}{3})^4$   $(\frac{1}{3})(\frac{1}{3})(\frac{1}{3})(\frac{1}{3})$   
 $\frac{1}{81}$

8.  $(-7n)^3$   $(-7n)(-7n)(-7n)$   
 $-343n^3$

6.  $-3^2$   
-9

9.  $-4^0$  -1

10. Complete the table at the right by completing the pattern.

Power	Value
$2^6$	64
$2^5$	32
$2^4$	16
$2^3$	8
$2^2$	4
$2^1$	2
$2^0$	1
$2^{-1}$	$\frac{1}{2}$
$2^{-2}$	$\frac{1}{2^2} = \frac{1}{4}$
$2^{-3}$	$\frac{1}{2^3} = \frac{1}{8}$

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Write an equivalent expression in simplest form to eliminate the negative exponent.

11.  $3^{-2} = \frac{1}{3^2} = \frac{1}{9}$

13.  $8^{-1} = \frac{1}{8^1}$

12.  $b^{-6} = \frac{1}{b^6}$

14.  $\frac{7}{d^{-9}} = 7d^9$

Evaluate the expression and circle the correct answer.

15.  $(4)^{-2} = \frac{1}{4^2}$

a) 16

b) -16

c)  $\frac{1}{16}$

d)  $-\frac{1}{16}$

16.  $(-2)^{-3} = \frac{1}{(-2)^3} = -\frac{1}{8}$

a) 8

b) -8

c)  $\frac{1}{8}$

d)  $-\frac{1}{8}$

17.  $-5^{-2} = -\frac{1}{5^2} = -\frac{1}{25}$

a) 25

b) -25

c)  $\frac{1}{25}$

d)  $-\frac{1}{25}$

18.  $-(-3)^3$

a) 27

b) -27

c)  $\frac{1}{27}$

d)  $-\frac{1}{27}$

Simplify each expression. Use only positive exponents.

19.  $2^5 \cdot 2^3 = 2^8$

23.  $\frac{2^7}{2^5} = 2^2$

20.  $3^0 \cdot 3^{-4} = 3^{-4} = \frac{1}{3^4}$

24.  $\frac{10^2}{10^{-5}} = 10^{2+(-15)} = 10^{-13}$

21.  $5^{-7} \cdot 5^2 = 5^{-5} = \frac{1}{5^5}$

25.  $(-4y)^4 = (-4y)(-4y)(-4y)(-4y) = 256y^4$

22.  $\frac{p^{24}}{p^3 \cdot p^9} = \frac{p^{24}}{p^{12}} = p^{12}$

26.  $\frac{4^{-2}}{4^{-4}} = 4^{-2+(-14)} = 4^{-16}$