Name_____

Evaluating Exponents

Date_____ Period_____

Evaluate.

1) $\left(\dfrac{1}{3}\right)^{-3}$

2) $\left(\dfrac{1}{2}\right)^{0}$

3) $(-3)^{-2}$

4) $\left(\dfrac{1}{4}\right)^{-1}$

5) $(-5)^{-1}$

6) 2^{-2}

7) $\left(\dfrac{5}{4}\right)^{2}$

8) $(10)^{0}$

9) $\left(\dfrac{5}{2}\right)^{-1}$

10) $\left(\dfrac{2}{7}\right)^{0}$

11) 3^{-3}

12) $\left(\dfrac{5}{8}\right)^{1}$

13) 3^{0}

14) $\left(\dfrac{4}{5}\right)^{3}$

MathVine - Pre-Algebra

Name_____

Evaluating Exponents

Date_____ Period_____

Evaluate.

1) $\left(\dfrac{1}{3}\right)^{-3}$

Answer: 27

2) $\left(\dfrac{1}{2}\right)^{0}$

Answer: 1

3) $(-3)^{-2}$

Answer: $\dfrac{1}{9}$

4) $\left(\dfrac{1}{4}\right)^{-1}$

Answer: 4

5) $(-5)^{-1}$

Answer: $-\dfrac{1}{5}$

6) 2^{-2}

Answer: $\dfrac{1}{4}$

7) $\left(\dfrac{5}{4}\right)^{2}$

Answer: $\dfrac{25}{16}$

8) $(10)^{0}$

Answer: 1

9) $\left(\dfrac{5}{2}\right)^{-1}$

Answer: $\dfrac{2}{5}$

10) $\left(\dfrac{2}{7}\right)^{0}$

Answer: 1

11) 3^{-3}

Answer: $\dfrac{1}{27}$

12) $\left(\dfrac{5}{8}\right)^{1}$

Answer: $\dfrac{5}{8}$

13) 3^0

Answer: 1

14) $\left(\dfrac{4}{5}\right)^3$

Answer: $\dfrac{64}{125}$

MathVine - Pre-Algebra

Name_____

Evaluating Exponents

Date_____ Period_____

Solution Steps

1) $\left(\dfrac{1}{3}\right)^{-3}$

Rewrite with a positive exponent by taking the reciprocal of the base

3^3

27

2) $\left(\dfrac{1}{2}\right)^0$

Any number raised to the zero power is one

$\left(\dfrac{1}{2}\right)^0 = 1$

3) $(-3)^{-2}$

Rewrite with a positive exponent by taking the reciprocal of the base

$\dfrac{-1}{(-3)^2}$

$\dfrac{1}{9}$

4) $\left(\dfrac{1}{4}\right)^{-1}$

Rewrite with a positive exponent by taking the reciprocal of the base

4^1

4

5) $(-5)^{-1}$

Rewrite with a positive exponent by taking the reciprocal of the base

$\dfrac{-1}{(-5)^1}$

$-\dfrac{1}{5}$

6) 2^{-2}

Rewrite with a positive exponent by taking the reciprocal of the base

$\dfrac{1}{2^2}$

$\dfrac{1}{4}$

7) $\left(\dfrac{5}{4}\right)^2$

$\dfrac{5}{4} * \dfrac{5}{4}$

$\left(\dfrac{5}{4}\right)^2 = \dfrac{25}{16}$

8) $(10)^0$

Any number raised to the zero power is one

$(10)^0 = 1$

9) $\left(\dfrac{5}{2}\right)^{-1}$

Rewrite with a positive exponent by taking the reciprocal of the base

$\left(\dfrac{2}{5}\right)^{1}$

$\dfrac{2}{5}$

10) $\left(\dfrac{2}{7}\right)^{0}$

Any number raised to the zero power is one

$\left(\dfrac{2}{7}\right)^{0} = 1$

11) 3^{-3}

Rewrite with a positive exponent by taking the reciprocal of the base

$\dfrac{1}{3^3}$

$\dfrac{1}{27}$

12) $\left(\dfrac{5}{8}\right)^{1}$

Any number raised to the first power is itself

$\left(\dfrac{5}{8}\right)^{1} = \dfrac{5}{8}$

13) 3^{0}

Any number raised to the zero power is one

$3^{0} = 1$

14) $\left(\dfrac{4}{5}\right)^{3}$

$\dfrac{4}{5} * \dfrac{4}{5} * \dfrac{4}{5}$

$\left(\dfrac{4}{5}\right)^{3} = \dfrac{64}{125}$