THIRD SPACE LEARNING

Anything to the Power of Zero Worksheet

Algebra

Grades 8

Skill Questions

Name: .....

Date: .....

1 Find the value of:

60^0

Answer

2 Evaluate:

100^0

Answer

3 Simplify x^0 where x is any non-zero number.

Answer

4 Find the value of: $(-2)^0$

Answer

5 Evaluate: $(-100)^0$

Answer

6 Evaluate the expression:

$$\frac{3}{2^0}$$

Answer

7 Simplify the expression:

$$(x\,y)^0$$

Answer

8 Evaluate:

$$(-5)^0 \times (5)^0$$

Answer

9 Simplify the expression:

$$\frac{y^0}{4}$$

Answer

10 What is 0^0?

Answer

Applied Questions

11 Julie thinks 8^0 is equal to 0. Mike thinks that 8^0 is equal to 1. Who is correct, Julie or Mike? Explain.

Answer

12 Apply your knowledge of exponent rules to simplify the expression:

$$3x^0y$$

Answer

13 Using your knowledge of exponent rules, compare the two expressions below by using, >, <, or =.

$(250)^0$ _____ $(-250)^0$

Answer

14 Applying the Exponent Rule for Zero Exponents

Compare the two expressions and explain which one is greater in value.

$$\frac{5^0}{3}$$

$$\frac{3}{5^0}$$

Answer

15 Applying the exponent rule for zero exponents to simplify the expression.

$$-\left(\frac{1}{5}\right)^0$$

Answer

Answers

Question number	Question	Answers	Standard
1	Find the value of: 60^0	$60^0 = 1$	8.EE.A.1
2	Evaluate: 100^0	$100^0 = 1$	8.EE.A.1
3	Simplify x^0 where x is any non-zero number.	$x^0 = 1$	8.EE.A.1
4	Find the value of: $(-2)^0$	$(-2)^0 = 1$	8.EE.A.1
5	Evaluate: $(-100)^0$	$(-100)^0 = 1$	8.EE.A.1
6	Evaluate the expression: $\frac{3}{2^0}$	$\frac{3}{2^0} = \frac{3}{1} = 3$	8.EE.A.1
7	Simplify the expression: $(xy)^0$	$(xy)^0 = 1$	8.EE.A.1
8	Evaluate: $(-5)^0 \times (5)^0$	$(-5)^0 \times (5)^0 = 1$	8.EE.A.1
9	Simplify the expression: $\frac{y^0}{4}$	$\frac{y^0}{4} = \frac{1}{4}$	8.EE.A.1
10	What is 0^0?	0^0 = undefined or indeterminate	8.EE.A.1

Question number	Question	Answers	Standard
11	Julie thinks 8^0 is equal to 0. Mike thinks that 8^0 is equal to 1. Who is correct, Julie or Mike? Explain.	Mike is correct because any number raised to the 0 power is 1. You can justify it using the division rule for exponents. For example, $\frac{8^1}{8^1} = 8^{1-1} = 8^0 = 1$ $8^0 = 1$ and $8^0 \neq 0$	8.EE.A.1
12	Apply your knowledge of exponent rules to simplify the expression: $3x^0y$	$3y$	8.EE.A.1
13	Using your knowledge of exponent rules, compare the two expressions below by using, >, <, or =. $(250)^0$ _____ $(-250)^0$	$(250)^0 = (-250)^0$ $1 = 1$	8.EE.A.1
14	Applying the Exponent Rule for Zero Exponents Compare the two expressions and explain which one is greater in value. $\frac{5^0}{3}$ $\frac{3}{5^0}$	$\frac{5^0}{3} = \frac{1}{3}$ $\frac{3}{5^0} = \frac{3}{1}$ → this expression is greater	8.EE.A.1
15	Applying the exponent rule for zero exponents to simplify the expression. $-(\frac{1}{5})^0$	–1	8.EE.A.1

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+1 929-298-4593

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