

Anything to the Power of Zero Worksheet

Algebra

Anything to the Power of Zero Worksheet | Grades 8

Skill	Questions		Name: Date:	
1 F	ind the value of:	60°		
				Answer
2 E	valuate:	100°		
				Answer
3 S	implify $x^{\scriptscriptstyle 0}$ where x is	any non-zero number.		
				Answer
4 F	ind the value of: (–2)	0		
				Answer
5 E	valuate: (–100)º			
				Answer

6	Evaluate the expression:	3 2º	
			Answer
7	Simplify the expression:		
•		$(xy)^{o}$	
			Answer
8	Evaluate:		
		(-5)° × (5)°	
			Answer

9 Simplify the expression: $\frac{y^0}{4}$

Answer

10 What is 0°?

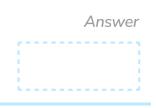
Answer

Applied Questions

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



Apply your knowledge of exponent rules to simplify the expression: $3x^0y$



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

Answer

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14 Applying the Exponent Rule for Zero Exponents

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

5º 3

<u>3</u> 5⁰

	Answer
I control	1
I control	1
I control	
I control	

Applying the exponent rule for zero exponents to simplify the expression. $-(\frac{1}{5})^0$

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Answer

Answers

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

Anything to the Power of Zero Worksheet | Grades 8 | Answers

Question number	Question	Answers	Standard
11	Julie thinks 8° is equal to 0. Mike thinks that 8° 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, $\frac{8^1}{8^1} = 8^{1-1} = 8^0 = 1$ $8^0 = 1 \text{ and } 8^0 \neq 0$	8.EE.A.1
12	Apply your knowledge of exponent rules to simplify the expression: $3x^{\!\scriptscriptstyle 0}y$	3 <i>y</i>	8.EE.A.1
13	Using your knowledge of exponent rules, compare the two expressions below by using, $>$, $<$, or $=$. $(250)^{\circ}$ $(-250)^{\circ}$	(250)° = (-250)° 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. $\frac{5^{\circ}}{3}$ $\frac{3}{5^{\circ}}$	$\frac{5^{\circ}}{3} = \frac{1}{3}$ $\frac{3}{5^{\circ}} = \frac{3}{1} \rightarrow \text{this}$ expression is greater	8.EE.A.1
15	Applying the exponent rule for zero exponents to simplify the expression. $-\left(\frac{1}{5}\right)^{0}$	-1	8.EE.A.1

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