

1.2 Order of Operations

Parenthesis
Please

Exponents
Excuse

MD multiply/divide
My Dear

AS add/subtract
Aunt Sally

Aug 17-8:48 PM

Let's review exponents.

base exponent

$2^3 = 2 \cdot 2 \cdot 2 = 8$

power 3 factors of 2

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Solve the exponential expression.

A. 2^4
 $2 \cdot 2 \cdot 2 \cdot 2 = 16$

B. $(\frac{1}{2})^2$
 $\frac{1}{2} \cdot \frac{1}{2} = \frac{1}{4}$

C. $(-3)^3$
 $-3 \cdot -3 \cdot -3 = -27$

D. $(-4)^2$
 $-4 \cdot -4 = 16$

Aug 19-1:16 PM

What is the simplified form of each expression?

A. $(6 - 2)^3 \div 2$
 $= 4^3 \div 2$
 $= 64 \div 2$
 $= 32$

B. $\frac{(2^4 - 1)}{5}$
 $= \frac{16 - 1}{5}$
 $= \frac{15}{5}$
 $= 3$

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What is the simplified form of each expression?

C. $5 \cdot 7 - 4^2 \div 2$
 $5 \cdot 7 - 16 \div 2$
 $35 - 8$
 27

D. $12 - 25 \div 5$
 $12 - 5$
 7

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Write the expression in exponential form.

A. 8 squared = 8^2


B. y to the ninth power = y^9

C. $3 \cdot x \cdot x \cdot x \cdot x = 3x^4$

D. $4p \cdot 4p \cdot 4p \cdot 4p = (4p)^4$

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Does $2y^2 = (2y)^2$?



What is the value of the expression for $y = 5$?

A. $2y^2$ $2 \cdot 5^2$
 $2 \cdot 25 = \boxed{50}$

B. $(2y)^2$ $(2 \cdot 5)^2 = 10^2 = \boxed{100}$

Aug 19-11:55 AM

What is the value of the expression for $x = 2$ and $y = 5$?

C. $(3x^3) - 5y$

$$(3 \cdot 2^3) - 5 \cdot 5$$

$$(3 \cdot 8) - 5 \cdot 5$$

$$24 - 5 \cdot 5$$

$$24 - 25$$

$$\boxed{-1}$$

D. $y^2 + y - 12 \div x^2$

$$5^2 + 5 - 12 \div 2^2$$

$$25 + 5 - 12 \div 4$$

$$25 + 5 - 3$$

$$\boxed{27}$$

Jan 6-12:57 PM

What is the value of each expression when $a = 3$ and $b = 4$?

A. $3a - b^2$

$$3 \cdot 3 - 4^2$$

$$9 - 16$$

$$\boxed{-7}$$

B. $2b^2 - 7a$

$$2 \cdot 4^2 - 7 \cdot 3$$

$$2 \cdot 16 - 7 \cdot 3$$

$$32 - 21$$

$$\boxed{11}$$

Aug 19-12:12 PM

What is the value of each expression when $a = 3$ and $b = 4$?

C. $(2b - a)^2$

$$(2 \cdot 4 - 3)^2$$

$$(8 - 3)^2$$

$$5^2$$

$$\boxed{25}$$

D. $2ab - 5b \div 2$

$$2 \cdot 3 \cdot 4 - 5 \cdot 4 \div 2$$

$$24 - 10$$

$$\boxed{14}$$

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Classwork: p.10 #4 - 30 even

Show your work!

Final Five

You can find the distance in feet that an object falls in t seconds using the expression $16t^2$. If you drop a ball from a tall building, how far does the ball fall in 3 seconds?

a) 16 ft b) 48 ft c) 96 ft d) 144 ft

Aug 19-1:21 PM