

6th grade math

Mrs. Mujica

April 9, 2020

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Example

Follow the order of operations to simplify $12 - 3^2$

First find 3^2 . $3^2 = 3 \cdot 3 = 9$

Then subtract 9 from 12. $12 - 9 = 3$

This means that:

$$12 - 3^2 = 12 - 9 = 3$$

The value of the expression is 3.

Handwritten notes: A circled '9' is written above the exponent in the first step. A vertical yellow note 'PEMDAS' is written to the right, with 'P' and 'M' crossed out, and 'A' and 'S' checked. Below it, 'L → R' and 'L → R' are written with arrows pointing to the right.

1 Explain why you must simplify 3^2 first.

2 Diallo says that the value of $12 - 3^2$ is 81. How did he get that answer?

3 Maggie says that if the expression was $12 \div 3^2$, you would divide before simplifying 3^2 . Is she right? Explain.

4 Suppose the expression was $(12 - 3)^2$. Would you still simplify 3^2 first? Explain.

$$\frac{12}{9}$$

$$9 = 3^2$$

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- 5 What is the value of $4 + 2 \cdot 3$?

Show your work.

$$4 + 2 \cdot 3 = 28$$

$4 \times 4 = 16$

- 6 What is the value of $\frac{4^2}{2}$? Describe the steps you took to find your answer.

$$\frac{16}{2} = 8$$

- 7 Darren and Barb each tried to evaluate $6^2 + 4 \div 2$.

Darren

$$\begin{aligned} 6^2 + 4 \div 2 \\ = 36 + 4 \div 2 \\ = 40 \div 2 \\ = 20 \end{aligned}$$

Barb

$$\begin{aligned} 6^2 + 4 \div 2 \\ = 36 + 4 \div 2 \\ = 36 + 2 \\ = 38 \end{aligned}$$

Who evaluated the expression correctly? Explain what the other student did wrong.

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- 8 Use the numbers 8, 6, and 2 and one operation to write an expression that includes an exponent and has a value of 8. Use each number only once.

Example = $2^6 \div 8$

- 9 Show where to place parentheses in the expression $4 + 3^2 \cdot 5 - 2$ so that the value of the expression is 31.

$4 + 3^2 \cdot (5 - 2)$

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Any question?



Practice for today: pages 167-168

REMINDER:

ALL HOMEWORKS ARE
DUE TODAY!

- Mathia – 90mins
- EduLastic – FSA (if you haven't uploaded) /
- DreMakeUp3(MAFS.6.EE.1 .1)
- Practice Pages – Answers