

Practice What You Know! Part 2

Teacher Notes

Look at the questions below and practice the calculator methods you have learned to find the answers. Remember to try to find the easiest way you can!

28 Sean is an Algebra I student who believes that $xy^2 = (xy)^2$. Rudy informs Sean that this theory is not always true. Which pair of values for x and y could Rudy use to disprove Sean's theory?

- F** $x = 0$ and $y = 2$
- G** $x = 1$ and $y = 2$
- H** $x = 2$ and $y = 0$
- J** $x = 2$ and $y = 1$

How did you find the answer? _____

Students may calculate the answer on the home screen. Using the 2nd ENTER recall process, students can check the answer choices. They also need to notice that they are looking for values that do not evaluate equally.

$0*2^2$		$(0*2)^2$	
	0		0
$(0*2)^2$		$1*2^2$	
	0		4
		$(1*2)^2$	
			4
	4		0
$(1*2)^2$		$(2*0)^2$	
	4		0
$2*0^2$		$2*1^2$	
	0		2
$(2*0)^2$		$(2*0)^2$	
	0		0

The last values generate different answers when used to evaluate the expressions.

Practice What You Know! Part 2

The next question is a little different. Think about how you can use methods used in previous lessons to find the answer to this questions.

30. The spreadsheet below contains 20 cells. A cell in a spreadsheet can be identified first by the column letter and then by the row number. For example, the number 10 is found in Cell C4.

	A	B	C	D	E
1	6	-3	7	1	5
2	12	-4	8	2	
3	18	-5	9	3	-35
4	24	-6	10	4	

If the number in Cell A3 = B4 - 3(E2 + D4), which of the following must be the number in Cell E2?

- F** -21
- G** -15
- H** -4
- J** -12

What answer did you find? _____

How did you find the answer? _____

Students need to translate the information in the cells of the spreadsheet to generate the equation $18 = -6 - 3(x + 4)$.

Practice What You Know! Part 2

Students will then select a method by which to find the value of x for which the outcome is 18. Using the home screen is one method by which the answer can be found.

$-6-3(-21+4)$	45
---------------	----

Students will need to use the 2nd ENTER recall process to continue checking the values of x to find the correct value.

$-6-3(-21+4)$	45	$-6-3(-15+4)$	45
$-6-3(-15+4)$	27	$-6-3(-4+4)$	27
$-6-3(-4+4)$	-6	$-6-3(-12+4)$	-6
			18

Students could also have entered the equation in the equation editor and, using the ASK capacity of the table, have tried the values for x in the table until they found the output value of 18 when the input value was -12.

Practice What You Know! Part 2

5 A rectangle has an area of 144 square inches and a perimeter of 50 inches. What are the dimensions of the rectangle?

- A** 10 in. by 15 in.
- B** 9 in. by 16 in.
- C** 8 in. by 18 in.
- D** 4 in. by 36 in.

Describe your answer and the process you used to find that answer.

Students need to recognize that they are dealing with two values, the area and the perimeter and both have to give the values at the same time.

10*15	150
■	

This is not the correct area and cannot be right.

10*15	150
9*16	144
2(9+16)	50

Checking the next pair of dimensions, the product gives the correct area and twice the sum gives the correct perimeter.