

[12-10-16A-T7]

Product of integers

■ The ideas

For today, I am asking you to accept several ideas without discussion about why they are correct. I would like you to practice using those ideas today. Tomorrow we will talk about their meaning and why they are true.

Those ideas are the following.

- [1] The product of positive numbers is a positive number. For example, $(6)(5) = 30$.
- [2] The product of two negative numbers is a positive number. For example, $(-7)(-3) = 21$.
- [3] The product of a negative number and a positive number is a negative number. For example, $(-5)(4) = -20$ and $(8)(-5) = -40$.

■ Using these ideas

Practice using these ideas by working the problems on the problem set you receive along with this. It is named "12-10-16-T7".

Use the order of operations you learned in previous grades.

7B students. You do *not* have to use the idea of distribution that we talked about yesterday.

Examples:

$$[\text{EX1}] \quad 5 \cdot (-3) = -15$$

I know using both the dot and parenthesis in the same expression may look redundant to you. But it makes complicated expressions easier to read and it is perfectly fine notation.

$$[\text{EX2}] \quad (-6) \cdot (-3) = 18$$

$$\begin{aligned} [\text{EX3}] \quad & (-6) \cdot (-3) \cdot (-5) \\ & = 18 \cdot (-5) \\ & = -90 \end{aligned}$$

$$\begin{aligned} [\text{EX4}] \quad & (-7) \cdot (-3) \cdot (-5) \\ & = 21 \cdot (-5) \\ & = -105 \end{aligned}$$

$$\begin{aligned} [\text{EX5}] \quad & (-6)(2 - 10) \\ & = (-6)(-8) \\ & = 48 \end{aligned}$$

$$\begin{aligned} \text{[EX6]} \quad & (-6)((-2) - (-4)) \\ & = (-6)(2) \\ & = -12 \end{aligned}$$