

Name: _____

Date: _____

Learning Goal 1.3	I can apply order of operations to integers.
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Find the value of the following expression.

PEMDAS
BEDMAS

-17 ~~||||~~
-15 |
-33 |

$$\begin{aligned}
 & 5 \times (-3) + (-6) \div 3 \\
 & = -15 + (-6) \div 3 \\
 & = -15 + (-2) \\
 & = -17
 \end{aligned}$$

Brackets
Exponents
Division
Multiplication
Addition
Subtraction

$$\begin{aligned}
 & 5 \times (-3) + (-6) \div 3 \\
 & = -15 + (-6) \div 3 \\
 & = -15 + (-2) \\
 & = -17
 \end{aligned}$$

Best part: No more models!

Example Evaluate the following expressions.

a. $-13 + (7 - (-4)) \times 2$

b. $(-2) - 10 \div (-2) - (-8)$

~~B~~
~~E~~
~~D~~
M
A
S

$$\begin{aligned}
 & = -13 + 11 \times 2 \\
 & = -13 + 22 \\
 & = 11
 \end{aligned}$$

EXT

$$\begin{aligned}
 & = 13 + 11 \times 2 \\
 & = 13 + 22 \\
 & = 35
 \end{aligned}$$

P/Ext

$$\begin{aligned}
 & = (-2) - (-5) - (-8) \\
 & = 3 - (-8) \\
 & = 11
 \end{aligned}$$

~~B~~
~~E~~
~~D~~
M
A
S

$$c. ((-1) - (-6)) \div (-1)^3$$

$$= 5 \div (-1)^3$$

$$= 5 \div (-1)$$

$$= -5$$

$$(-1)^3 = (-1) \times (-1) \times (-1)$$

$$= 1 \times (-1)$$

$$= -1$$

$$d. (-39) - (4 \div (-2))^2 + (-7)^2$$

$$= (-39) - (-2)^2 + (-7)^2$$

$$= (-39) - 4 + (-7)^2$$

$$= (-39) - 4 + 49$$

$$= -43 + 49$$

$$= 6$$

$$(-2)^2 = (-2) \times (-2)$$

$$= 4$$

Example What is the mean of the following numbers: $-2, -6, 4, -5, 2$ and 1 .

Average

$$((-2) + (-6) + 4 + (-5) + 2 + 1) \div 6$$

$$= ((-8) + 4 + (-5) + 2 + 1) \div 6$$

$$= ((-4) + (-5) + 2 + 1) \div 6$$

$$= ((-9) + 2 + 1) \div 6$$

$$= ((-7) + 1) \div 6$$

$$= (-6) \div 6$$

$$= -1$$

The mean of
the numbers
is -1 .