Today's Target

1. Get out your homework

2. Compare your answers with someone at your table.

3. Discuss answers that were different, and figure out what went wrong.

4. If you can't agree on an answer, write the number of the question below.
1.2
I can use order of operations to simplify expressions.
Josie had 4 copies of a science report made to give to her lab partner. In each copied report there were 20 black-and-white pages and 5 color pages. She paid a copy center to make and bind the copies. What is his total cost if a color page costs $2.25 and a black-and-white page costs $0.75?

\[ 4 \left[ (20 \cdot 0.75) + (5 \cdot 2.25) \right] \]

\[ 4 \left( 20 \cdot 0.75 \right) + 4 \left( 5 \cdot 2.25 \right) \]

Can you write this expression?

\[ 4 \left( 20 \cdot 0.75 + 5 \cdot 2.25 \right) \]
\[
\frac{(-1 + 8) \cdot 3 - 3^2}{-6}
\]

\[
\frac{7 \cdot 3 - 3^2}{-6} = \frac{7 \cdot 3 - 9}{-6}
\]

\[
\frac{21 - 9}{-6} = \frac{12}{-6}
\]

\[
\frac{21 - 9}{-6} = \frac{12}{-6}
\]
\[ 4 \left( 4 + 6 \cdot \frac{-15 - -9}{-6} \right) \]

\[ \eta(\eta + 6 \cdot \frac{-6}{-6}) \times 10 \]

\[ \eta(\eta + 6 \cdot 1) \]

\[ \eta(\eta + 6) \]
\[-\frac{16}{4} + \frac{-15 \cdot 3}{-9} - -1\]

\[-4 + \frac{-45}{9} - -1\]

\[-4 + 5 + 1 \mid = 2\]
Insert grouping symbols in the expression so that the value of the expression is \(a\).

\[
4 + 7 \times (3^2 - 2) + 5 \times 6
\]

\(a = 25\)

\[
\begin{align*}
4 &+ 7 \times 3^2 - (2+5) \times 6 \\
4 &+ 7 \times 9 - 7 \times 6 \\
4 &+ 63 - 42 \\
61 &- 42 = 25
\end{align*}
\]

\(a = 83\)

\[
\begin{align*}
4 &+ 7 \times 7 + 5 \times 6 \\
4 &+ 49 + 30 \\
53 &+ 30 = 83
\end{align*}
\]
A group of 12 students volunteers to collect litter for one day. A sponsor provides 3 juice drinks and 2 sandwiches for each student and pays $30 for trash bags. A juice costs $1.25 and a sandwich costs $2. What is the sponsor's cost?

What is the simplest way you could write this expression?
Suppose the number of volunteers doubles. Does the sponsor's cost double as well? Explain.
The cost (in dollars) to buy posters at the Posters Plus online store is given by the expression $3.5p + 6.75$. At the More Posters online store, the cost is given by $4.25p + 2.55$. Which store has the lower cost for 5 posters?
Groupwork: Can you find the mistake?

\[
(7 + 3) \div 5 + \sqrt{16} \cdot 2^2 - 6 \\
10 \div 5 + 4 \cdot 4 - 6 \\
2 + 4 \cdot 4 - 6 \\
6 \cdot 4 - 6 \\
24 - 6 \\
18
\]
Evaluate the expression.

\[ a - \left( b - \left( \frac{b}{3} \right)^2 \right); \text{ use } a = 5, \text{ and } b = 9 \]
Evaluate the expression.

\[2(z - (x - (10 - y)))\]; use \(x = 8\), \(y = 4\), and \(z = 10\)
Three weeks ago, an art supply store started selling a paint kit for 75% off the original price. Now the kit is 15% off of the sale price. The expression $0.75x - 0.15(0.75x)$ represents the current price of the paint kit where $x$ is the original price. Find the current price of the kit if it originally cost $48?

<table>
<thead>
<tr>
<th>Option</th>
<th>Price</th>
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<tbody>
<tr>
<td>A</td>
<td>$64.80</td>
</tr>
<tr>
<td>B</td>
<td>$30.60</td>
</tr>
<tr>
<td>C</td>
<td>$41.40</td>
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</table>
I can use order of operations to simplify expressions.

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<tr>
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<tbody>
<tr>
<td>A</td>
<td>Not so good.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Okay</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>Pretty Good</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>Great</td>
<td></td>
<td></td>
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