SSR

Read silently until 9:15

Expressions Applications Opener

1. What is \((3x - 2) + 4x + 1\) in simplest form?
   - A. \(x - 3\)
   - B. \(x - 3\)
   - C. \(-x - 1\)
   - D. \(x - 1\)

2. Which of the following expressions can be written as \(3(3 + x)\)?
   - A. \(x \cdot 3 + x \cdot 3\)
   - B. \(5 \cdot 3 + 5 \cdot x\)
   - C. \(5 \cdot 3 + x\)
   - D. \(3 + 5 \cdot x\)

3. Use the Distributive Property to rewrite \(4(12 + 8)\).
   \[
   \begin{array}{c}
   \frac{3}{5} \cdot \frac{3}{15} \quad \frac{5 \cdot x}{5x} \quad 80
   \end{array}
   \]
Learning Target

I can write area and perimeter in terms of x by simplifying expressions.
Expressions Applications Smartboard.notebook

3.

What is area?

How do you find area of a rectangle?

Express the area of these rectangles in terms of x.

1. \[ x \times (5x + 3) \]

2. \[ 6 + 4x \]

\[ 7 \times (6 + 4x) \]

\[ \frac{5x + 3}{20x + 12} \]

\[ \frac{6 + 2x}{16x + 4} \]

\[ \frac{42 + 28x}{28x + 42} \]
3. \( \frac{2.8x - 4}{9} \)

\[ \text{A: } 25.2x - 36 \]

\[ \frac{2.8}{9} \]

\[ \frac{25.2}{2.8} \]

\[ 9 \]

4. \( \frac{8 - \frac{1}{5}x}{3} \)

\[ \frac{3}{4} \]

\[ \frac{4}{8} \]

\[ -\frac{1}{5}x \]

\[ \frac{3}{4} \]

\[ 0 \]

\[ -\frac{3}{20}x \]

\[ \text{A: } 6 - \frac{3}{20}x \]
Expectations

One person will have the whiteboard, that will rotate after each problem. If you do not have the whiteboard you are writing in your Interactive Notebook on page 92.

Volume: Low Level 2 (for discussion if needed while solving)

Find Perimeter.

\[2(4x + 6) \quad 2(3x + 8)\]
Find Perimeter.

\[
2 \left( \frac{3}{4}x + \frac{12}{5} \right)
\]

\[
2 \left( \frac{2}{3}x + 2 \right)
\]

\[
\frac{3}{3}x + \frac{2}{3} + 4
\]

\[
\frac{2}{3} \cdot \frac{3}{4} = \frac{6}{4} = \frac{3}{2}
\]

\[
2 \cdot \frac{3}{4} = \frac{6}{4}
\]

\[
2 \cdot \frac{12}{5} = \frac{24}{5}
\]

\[
\frac{18}{12}x + \frac{16}{12}x
\]

Find Perimeter.

\[
2(6x + 5)
\]

\[
2(4x - 2)
\]
Find Perimeter.

\[ 4.1x - 3 \quad 6.3x - 1.2 \]

\[ 3.8x + 5.4 \]

Find Perimeter.

\[ 5x - 2 \quad 4x + 3 \]

\[ 12 - 6x \]
Find Area.

\[
\begin{align*}
3 + 6x \\
\frac{2}{3} + \frac{12}{3}x \\
2 + 4x
\end{align*}
\]

Find Area.

\[
\begin{align*}
\frac{3}{7}x + \frac{2}{3} \\
8
\end{align*}
\]
Find Area.

\[8 - 4x\]

Find Area.

\[\frac{7}{4}x + 3\]
SUMMARY

"The length of a rectangle is 4x + 3 and the width is 1/2."

Austin says the area of the rectangle is 2x + 3. Is he correct?