

What's Going On?

Checking In

Minds on

Word Problems

Action!

Perimeter and Area

Consolidation

Multiple Choice Questions

Learning Goal - I will be able to solve problems requiring the distributive property and the exponent laws.

Checking In**L.G.L.**

This goes, as always, with yesterday's learning goal in your learning goal log book.

Simplify fully.

$$\begin{aligned} & 3x^3(-2x + 1) - 2x(x^2 - 7) \\ &= (-6x^4 + 3x^3) - (2x^3 - 14x) \\ &= -6x^4 + 3x^3 - 2x^3 + 14x \\ &= -6x^4 + 1x^3 + 14x \end{aligned}$$

Minds on

Word Problems

In a soccer tournament, teams earn 3 points for a win and 1 point for a tie.

a. If a team loses all of their games, how many points do they have?

0 ~~6~~

b. If a team wins 2 games and loses 1 game, how many points do they have?

6 (2 wins \times 3 pts)

c. If a team ties 4 games and loses 2 games, how many points do they have?

4 (4 ties \times 1 pt)

d. If a team wins 3 games and ties 2 how many points do they have?

11 (3 wins \times 3 pts + 2 ties \times 1 pt)

e. Create an expression to represent the total number of points a team earns.

$$P = 3w + 1t + 0l$$

P represents # points

w represents # wins

t represents # ties

l represents # losses

→ $P = 3w + t$

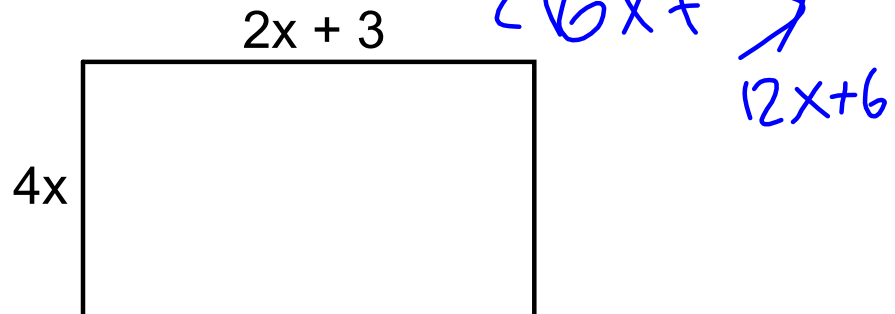
f. Write an expression for a tournament where you earn two points for a win, no points for a tie and you lose 2 points for a loss.

$$P = 2w + 0t - 2l$$

$$P = 2w - 2l$$

Action!

Perimeter and Area



- a. Determine a **fully simplified** expression for the perimeter of the figure.

$$P = 4x + (2x + 3) + 4x + (2x + 3)$$

$$= 12x + 6$$

$$P = 2(6x + 3)$$

$$= 12x + 6$$

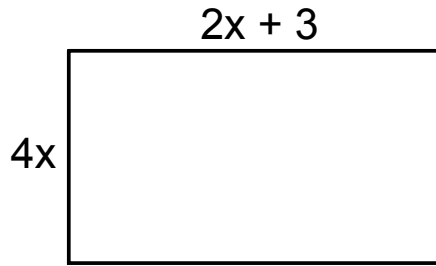
- b. Determine a **fully simplified** expression for the area of the figure.

$$A = 4x(2x + 3)$$

$$= 8x^2 + 12x$$

Action!

Perimeter and Area



c. Determine the perimeter and area when $x = 3$.

$$\begin{array}{l}
 P = 12(3) + 6 \\
 = 36 + 6 \\
 = 42
 \end{array}
 \left|
 \begin{array}{l}
 A = 8(3)^2 + 12(3) \\
 = 8(9) + 36 \\
 = 72 + 36 \\
 = 108
 \end{array}
 \right.$$

d. Determine the perimeter and area when $x = 7$.

$$\begin{array}{l}
 P = 12(7) + 6 \\
 = 84 + 6 \\
 = 90
 \end{array}
 \left|
 \begin{array}{l}
 A = 8(7)^2 + 12(7) \\
 = 8(49) + 84 \\
 = 392 + 84 = 476
 \end{array}
 \right.$$

e. Determine the perimeter and area when $x = -2$.

$$\begin{array}{l}
 P = 12(-2) + 6 \\
 = -24 + 6 \\
 = -18
 \end{array}
 \left|
 \begin{array}{l}
 A = 8(-2)^2 + 12(-2) \\
 = 32 - 24 \\
 = 8
 \end{array}
 \right.$$

Homework!!!