

Simplifying Algebraic Expressions - Day 2

- combine only LIKE TERMS
- remember when adding or subtracting fractions, need a common denominator

Perimeter - the distance around a polygon; need to add all of the side lengths.

Simplify the expression.

$$1) \frac{1}{4}(a + 2b) + -\frac{2}{3}(4a + 1b)$$

$$\frac{1}{4} \cdot \frac{a}{1} + \frac{1}{4} \cdot \frac{2b}{1} + -\frac{2}{3} \cdot \frac{4a}{1} + -\frac{2}{3} \cdot \frac{-1b}{1}$$

$$\frac{1a}{4} + \frac{1b}{2} + \frac{-8a}{3} + \frac{2b}{3}$$

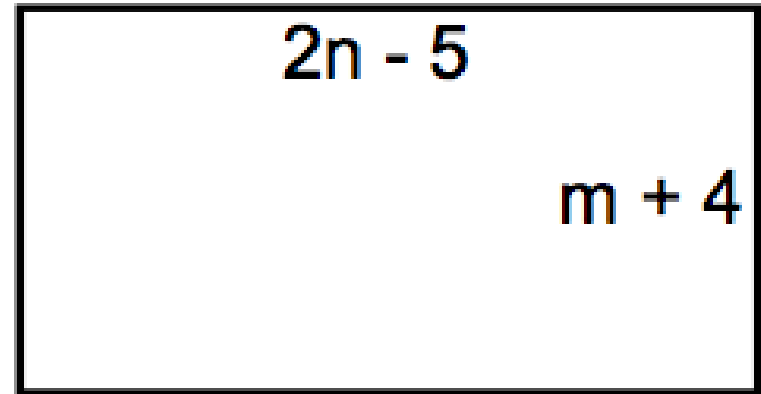
$$\frac{1a}{4} + \frac{-8a}{3} + \frac{1b}{2} + \frac{2b}{3}$$

$$\frac{3a}{12} + \frac{-32a}{12} + \frac{3b}{6} + \frac{4b}{6}$$

$$\frac{-29a}{12} + \frac{7b}{6}$$

- ✓ Step 1 - change subtraction into plus negative
- ✓ Step 2 - distribute
- ✓ Step 3 - multiply fractions
- ✓ Step 4 - combine like terms using the LCD.

Write an expression for the perimeter.



$$\underbrace{2n - 5 + 2n - 5} + \underbrace{m + 4 + m + 4}$$

$$4n + 2m - 10 + 8$$

$$4n + 2m - 2$$