

Warm-up

Dec 5/14

$$\underline{(5x - 1)} + \underline{(10x^2 + 7x)}$$

1. Simplify (Group the like terms)
2. Add the two polynomials
3. What type of polynomial is your answer?

$x^2 = \text{oranges}$   
 $x = \text{apples}$

$-1 = \text{mangos.}$

$$\begin{array}{r} \cancel{5x} - 1 + \cancel{10x^2} + 7x \\ 10x^2 + \cancel{5x} + 7x - 1 \\ \hline 10x^2 + 12x - 1 \end{array}$$

$\rightarrow$  Descending order

00000 00000  
 00000 00000  
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$$\begin{array}{r}
 \text{ba)} \quad 2x \mid +4 \\
 + \quad 3x \mid -5 \\
 \hline
 5x \mid -1
 \end{array}$$

$$\begin{array}{r}
 \text{c)} \quad 3x^2 \mid +5x \mid +7 \\
 + \quad -8x^2 \mid -3x \mid +5 \\
 \hline
 -5x^2 \mid +2x \mid +12
 \end{array}$$

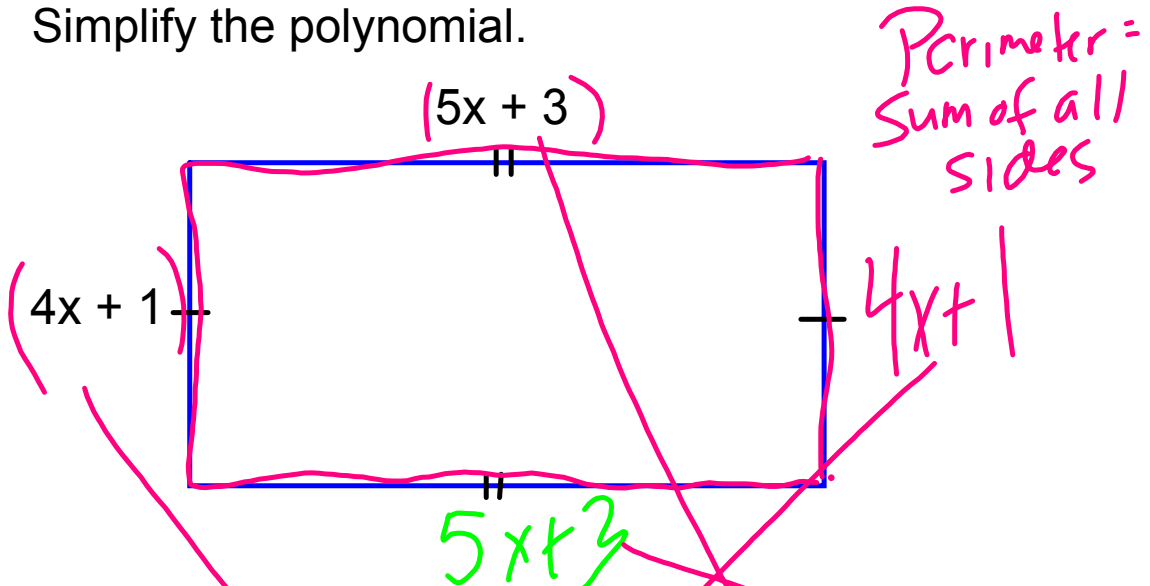
$x^2$ = Oranges

$x$ =apples

Constants= Mangos

## Determining a Polynomial for the perimeter of a rectangle

- a) Write a polynomial for the perimeter of this rectangle.  
Simplify the polynomial.



Perimeter = the sum of all sides

$$= (4x + 1) + (4x + 1) + (5x + 3) + (5x + 3)$$

$$= 4x + 1 + 4x + 1 + 5x + 3 + 5x + 3$$

$$= 4x + 4x + 5x + 5x + 1 + 1 + 3 + 3$$

$$= 18x + 8$$

Apples

Take Brackets away

Group like terms

Mangos

The perimeter is  $18x + 8$ .

## Adding Polynomials in Two Variables

$s^2 = \text{apples}$     $c^2 = \text{blueberry}$   
 $s = \text{orange}$     $cs = \text{banana}$   
 $c = \text{mango}$

$$\text{Add: } (3s^2 + s - 4c - 5cs + 2s^2) + (-5c^2 + 3cs + 6c - 4s + 7c^2)$$

Remove Brackets

$$= 3s^2 + s - 4c - 5cs + 2s^2 - 5c^2 + 3cs + 6c - 4s + 7c^2$$

Group like terms.

$$= 3s^2 + 2s^2 + s - 4s - 4c + 6c - 5cs + 3cs - 5c^2 + 7c^2$$

Combine like terms

$$= 5s^2 - 3s + 2c - 2cs + 2c^2$$

Add them

# Practice Questions

## p.228 - 230

9 e-g

10 ii

12  
13

Quiz  
Tuesday



