

**8 - 5**

# **Adding and Subtracting Polynomials**

$$\text{Ex: } (\underbrace{3x^2 - 4x + 8}_{\text{ }}) + (\underbrace{2x - 7x^2 - 5}_{\text{ }})$$

$$\overbrace{-4x^2 - 2x + 3}^{\text{ }}$$

$$\text{Ex: } (\underbrace{2x^2 + 5} + \underbrace{(3x^2 - 2x + 6)}$$

$$5x^2 - 2x + 11$$

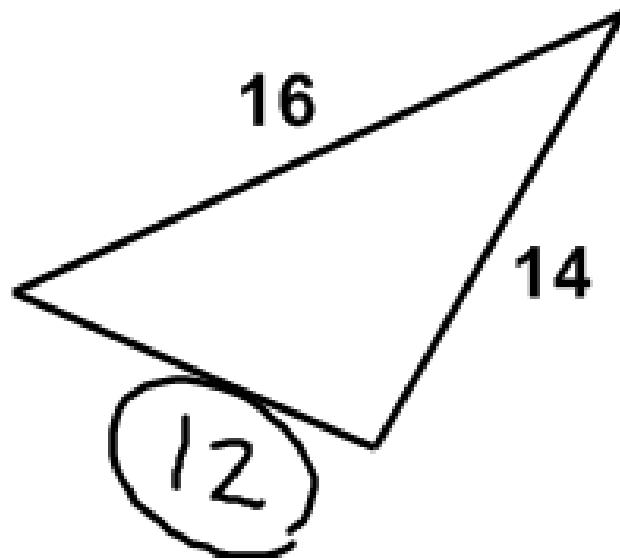
Ex:  $(3n^2 + \underbrace{13n^3 + 5n}_{\text{ }}) - \overbrace{(7n + 4n^3)}$

$$\boxed{9n^3 + 3n^2 - 2n}$$

Ex:  $(\underbrace{3x^2 + 4x + 2}_{}) - (\underbrace{x^2 - 5x - 5}_{})$

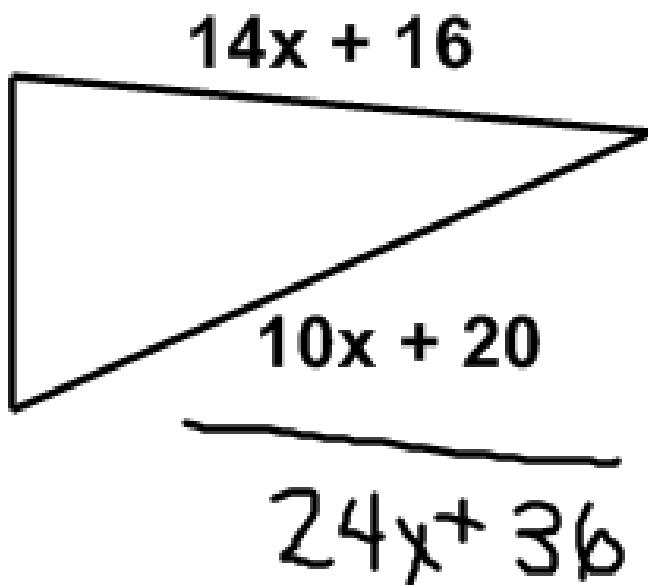
$$\boxed{2x^2 + 9x + 7}$$

**Ex:** The measure of the perimeter of the triangle shown is 42. Find the length of the third side.



$$\begin{array}{r} 42 \\ - 30 \\ \hline 12 \end{array}$$

**Ex:** The measure of the perimeter of the triangle shown is  $37x + 42$ . Find the polynomial that represents the third side of the triangle.



$$\begin{array}{r} 37x + 42 \\ -(24x + 36) \\ \hline 13x + 6 \end{array}$$

Homework:

p. 441 #12 - 22 even, 30