Adding and Subtracting Polynomials Name_____
Classwork + HW #1 Date_____ Pd.___

Find each sum or difference.

1. $(4a - 5) + (3a + 6)$

2. $(3p^2 - 2p + 3) - (p^2 - 7p + 7)$

3. $(7x^2 - 8) + (3x^2 + 1)$

4. $(x^2 + y^2) - (-x^2 + y^2)$

5. $5a^2 + 3a^2x - 7a^3$
   $(+)\ 2a^2 - 8a^2x + 4$

6. $5x^2 - x - 4$
   $(-)\ 3x^2 + 8x - 7$

7. $2x + 6y - 3z + 5$
   $4x - 8y + 6z - 1$
   $(+)\ x - 3y + 6$

8. $11m^2n^2 + 2mn - 11$
   $(-)\ 5m^2n^2 - 6mn + 17$

9. $(5x^2 - x - 7) + (2x^2 + 3x + 4)$

10. $(5a + 9b) - (4b + 2a)$

11. $(5x + 3z) + 9z$

12. $6p - (8q + 5p)$

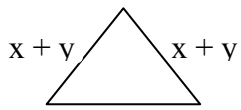
13. $(5a^2x + 3ax^2 - 5x) + (2a^2x - 5ax^2 + 7x)$

14. $(x^3 - 3x^2y + 4xy^2 + y^3) - (7x^3 - 9x^2y + xy^2 + y^3)$

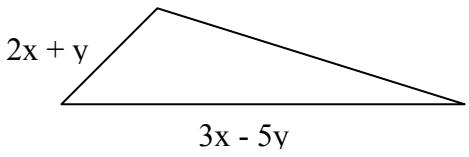
15. $(d^2 - d + 5) - (-d^2 + d + 5)$

Find the measure of the third side of each triangle. P is the measure of the perimeter.

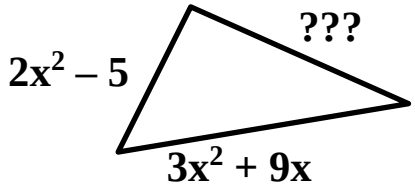
16. $P = 3x + 3y$



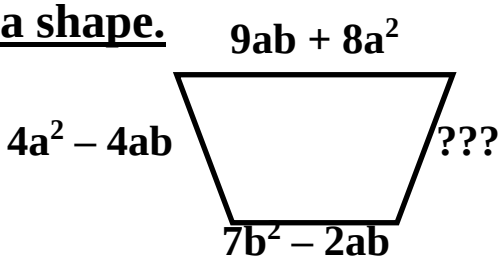
17. $P = 7x + 2y$



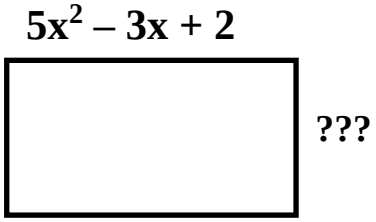
Find the missing side of a shape.



Perimeter
$5x^2 + 7x + 12$



Perimeter
$9b^2 - 2ab + 12a^2$



Perimeter
$14x^2 + 4x - 8$

Word Problems:

1) **The measure of the perimeter of a triangle is 37s + 42. It is known that two of the sides of the triangle have measures of 14s + 16 and 10s + 20. Find the length of the third side.**

2) **A triangle has a perimeter of 10a + 3b + 12 and has sides of length 3a + 8 and 5a + b, what is the length of the third side?**

3) **For a rectangle with length of 3x + 4 and perimeter of 10x + 18, what is the width of the rectangle?**

4) **A rectangle has a perimeter of $12y^2 - 2y + 18$ and has a width of $4y^2 - y + 6$. What is the length of the rectangle?**

5) **Ross has (8x – 5) tickets for Chuck E Cheese. He is going to play today and wants to buy a prize that is (15x + 1) tickets. How many tickets must he win to have enough tickets to buy the prize?**