

Adding & Subtracting Polynomials:

Examples:

1. $(9y - 7x + 15z) + (-3y + 8x - 8z)$

$6y + x + 7z$

2. $(3x^2 + 3xy - y^2) + (4xy + 6y^2)$

nothing to combine w/ , just bring down

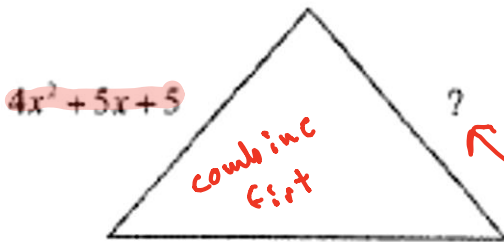
$3x^2 + 7xy + 5y^2$

3. $(7a - 10b) - (3a + 4b)$ Distribute (-)

$7a - 10b - 3a - 4b$

$4a - 14b$

7. Find the measure of the 3rd side of the triangle below if the perimeter is $7x^2 + 11x + 6$.



$7x^2 + 11x + 6 - (5x^2 + 8x)$

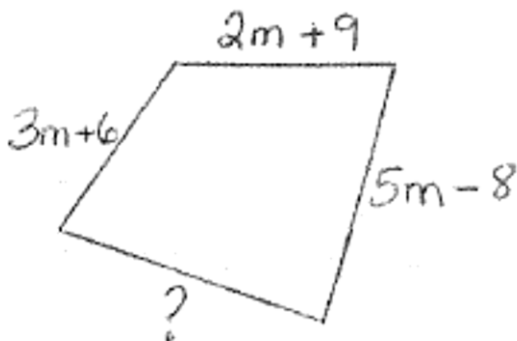
$7x^2 + 11x + 6 - 5x^2 - 8x$

$2x^2 + 3x + 6$

$4x^2 + 5x + 5 + x^2 + 3x - 5$

$5x^2 + 8x$

HW 8. Find the measure of the 4th side of the quadrilateral below if the perimeter is $14m + 6$.



$$x^m \cdot x^n = x^{m+n}$$

Multiplying Polynomials:

HW (odds)

Directions: Simplify the following polynomials. Answers must be in standard form.

1. $a(4a + 3)$

$$4a^2 + 3a$$

2. $-c(11c + 4)$

3. $x(2x - 5)$

4. $2y(y - 4)$

$$2y^2 - 8y$$

5. $-3n(n^2 + 2n)$

6. $4h(3h - 5)$

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

$$15x^3 - 3x^2 + 12x$$

8. $7c(c^3 - 2c^2 + 5)$

9. $-3n^2(-2n^2 + 2n + 4)$

10. $w(3w + 2) + 5w$

$$3w^2 + 2w + 5w$$

$$3w^2 + 7w$$

11. $z(5z - 3) - 2z$

12. $y^2(-4y + 5) - 6y^2$

13. $2x(3x^2 + 4) - 3x^2$

12. $4a(5a^2 - 4) + 9a$

15. $-2(4x^2 + 5x) + x(x^2 + 6x)$

16. $4b(5b - 3) - 2(b^2 - 7b - 4)$

$$20b^2 - 12b - 2b^2 + 14b + 8$$

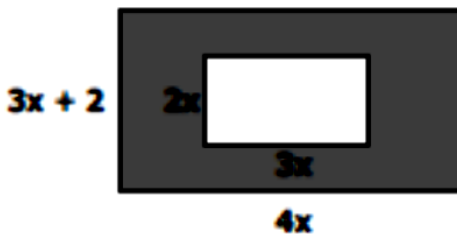
$$-18b^2 + 2b + 8$$

17. $4n(3n^2 + n - 4) - n(3 - n)$

18. $3m(3m + 6) - 3(m^2 + 4m + 1)$

19. $2(4x^2 - 2x) - 3(-6x^2 + 4) + 2x(x - 1)$

20. Write an expression to represent the area of the shaded region in simplest form.



HW (Evens)

Directions: Find each product using the FOIL method. Simplify your answer.		
1. $(x + 2)(x + 4)$ $\begin{array}{r rr} m & x & 2 \\ \hline x & x^2 & 2x \\ 4 & 4x & 8 \end{array}$ $x^2 + 6x + 8$	2. $(y + 5)(y + 1)$ $y^2 + y + 5y + 5$ $y^2 + 6y + 5$	3. $(k + 6)(k + 3)$
4. $(x + 5)(x - 2)$	5. $(m + 3)(m - 7)$	6. $(x - 1)(x + 8)$
7. $(w - 2)(w - 3)$	8. $(x - 10)(x - 4)$	9. $(2x + 1)(x - 5)$
10. $(4x - 7)(x + 3)$	11. $(2a + 5b)(a - 4b)$ $\begin{array}{r rr} m & 2a & 5b \\ \hline a & 2a^2 & 5ab \\ -4b & -8ab & -20b^2 \end{array}$ $2a^2 - 3ab - 20b^2$	12. $(x - 1)(5x - 4)$
13. $(3y + 1)(3y + 2)$	14. $(6a + 2)(2a + 3)$	15. $(4x + y)(7x - 2y)$ $28x^2 - 8xy + 7xy - 2y^2$ $28x^2 - xy - 2y^2$
16. $(8h - 3)(3h - 1)$	17. $(x + 2)(x - 2)$ $\begin{array}{r rr} m & x & 2 \\ \hline x & x^2 & 2x \\ -2 & -2x & -4 \end{array}$ $x^2 - 4$	18. $(y - 6)(y + 6)$
19. $(3x + 1)(3x - 1)$	20. $(x + y)(x - y)$	21. $(2r + s)(2r - s)$
22. $(x + 4)^2 \rightarrow (x+4)(x+4)$ $\begin{array}{r rr} m & x & 4 \\ \hline x & x^2 & 4x \\ 4 & 4x & 16 \end{array}$ $x^2 + 8x + 16$	23. $(2m - 5)^2$	24. $(a + 3b)^2$

WILL DO TOMORROW IN CLASS

Directions: Find each product using the FOIL method. Simplify your answer.	
1. $(x + 4)(x^2 + 3x - 6)$	2. $(y + 1)(y^2 + 2y + 4)$
3. $(k - 5)(k^2 - k - 8)$	4. $(m + 3)(m^2 + 3m + 5)$
5. $(x + 1)(x^2 + 2x + 1)$	6. $(z + 3)(z^2 - 4z + 2)$
7. $(3x + 1)(5x^2 + 2x - 6)$	8. $(2x + 2)(4x^2 - 3x - 6)$

Find the area of the shaded region.

