

CORNELL NOTES



TOPIC/OBJECTIVE:

NAME:

CLASS/PERIOD:

DATE:

ESSENTIAL QUESTION:

QUESTIONS:

NOTES:

SUMMARY:

TOPIC # 2 – 1: Adding and Subtracting Polynomials

Monomial: 1 term; _____

Polynomial: sum of monomials

Binomial: _____

Trinomial: _____

1. Use algebra tiles to model each polynomial.

$$(2x^2 + 3x + 2) + (x^2 - 5x - 5)$$

Combine like terms and write the resulting polynomial.

2. Use algebra tiles to model each polynomial.

$$(2x^2 + x - 4) - (x^2 - 4x + 1)$$

Take the opposite of all terms in the 2nd polynomial.

Combine like terms and write resulting polynomial.

Find each sum or difference.

$$\ominus 4x^2y^2 + 5xy - 3xy^2$$

$$\underline{(+)} \underline{6x^2y^2 + 8xy + 3xy^2}$$

$$4. \quad 11m^2 + 2m - 11$$

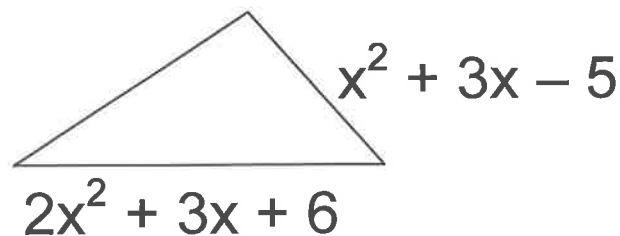
$$\underline{(-)} \underline{5m^2 - 6m + 17}$$

$$5. \quad (3a^2 + 3ab - b^2) + (4ab + 6b^2)$$

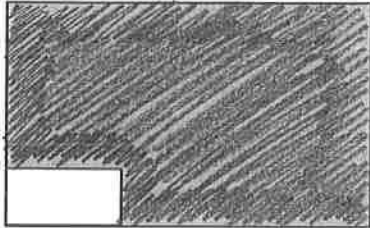
$$6. \quad (5y^2 + 7y + 8) - (2y^2 - 4y + 3)$$

7. The measures of two sides of a triangle are given. P is the perimeter. Find the measure of the third side.

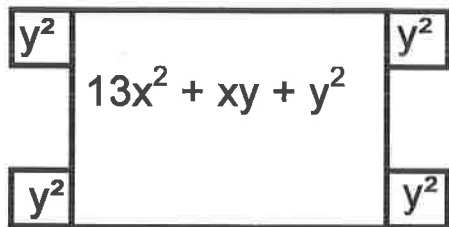
$$P = 4x^2 + 5x + 5$$



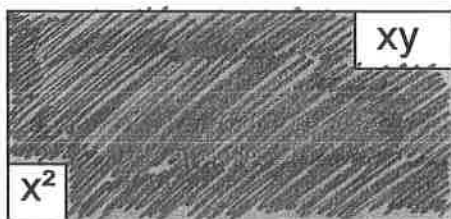
8. Find the area of the shaded region if $9x^2 - 6xy + 3y^2$ is the area of the total region and $3x^2 + y^2$ is the area of the unshaded region.



9. Find the total area of the figure.



10. Find the area of the shaded region if the area of the total region is $5x^2 - 4xy + 2$.



NAME _____ DATE _____ PERIOD _____

Adding and Subtracting Polynomials

Find each sum or difference.

$$\begin{array}{r} 1. \quad 5ax^2 + 3a^2x \quad - 5x \\ (+) \quad 3ax^2 \quad \quad - 5ax + 7x \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 11m^2n^2 + 2mn - 11 \\ (-) \quad 5m^2n^2 - 6mn + 17 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 3a + 2b - 7c \\ \quad -4a + 6b + 9c \\ (+) \quad -3a - 2b - 7c \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 2x^2 - 5x + 7 \\ \quad 5x^2 \quad \quad - 3 \\ (+) \quad x^2 - x + 11 \\ \hline \end{array}$$

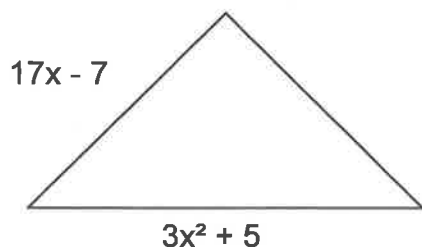
$$5. (4x^2 + 5x) + (-7x^2 + x)$$

$$6. (5b - 7ab + 8a) - (5ab - 4a)$$

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

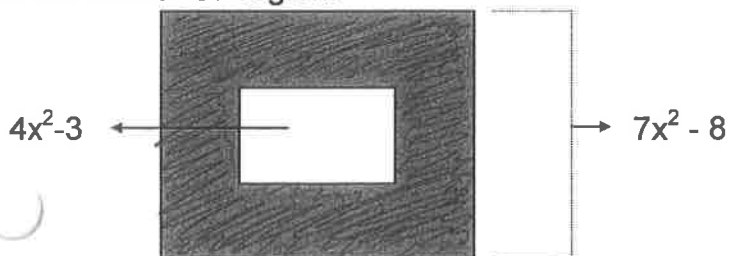
$$8. (5x^2 - 4) - (3x^2 + 8x + 4)$$

9. The measures of two sides of a triangle are given. The perimeter of the triangle is $13x^2 - 14x + 12$. Find the measures of the third side.

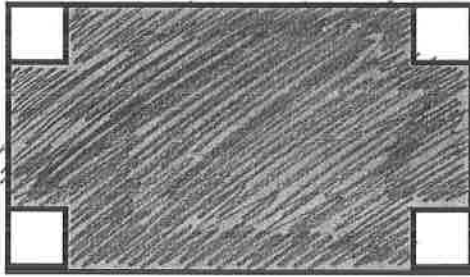


10. Find the area of the shaded region if $7x^2 - 8$ is the area of the total region and $4x^2 - 3$ is the area of the unshaded region.

Answer: _____

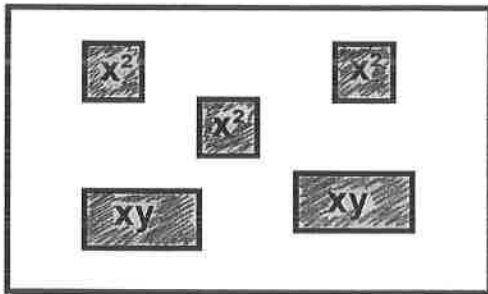


11. Find the total area of the figure if the shaded region is $6x^2 - 2xy + 3y^2$ and the corners are square regions with each having an area $4x^2$.



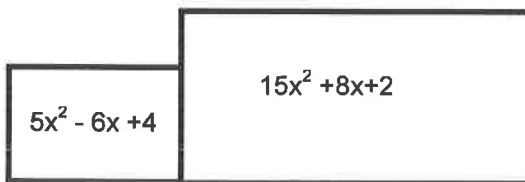
Answer: _____

12. Find the area of the unshaded region if the total region has an area of $6x^2 + 3xy + 6y$ and the shaded regions have the given areas.



Answer: _____

13. Find the total area of the two figures below if each has the given area.



Answer: _____

14. SOLVE $3(4x - 6) = 2(4x - 3) - (x - 8)$

Answer: _____

15. A state fair charges all guests \$5 admission and it costs \$2.75 to go on each ride at the midway. Sam has \$25 to spend during his time at the fair. How many rides can Sam go on? Write an inequality and solve.

Inequality: _____

Answer: _____