Section 5.4: Subtracting Polynomials

Method 1: Using Algebra Tiles

(1) Model the first polynomial

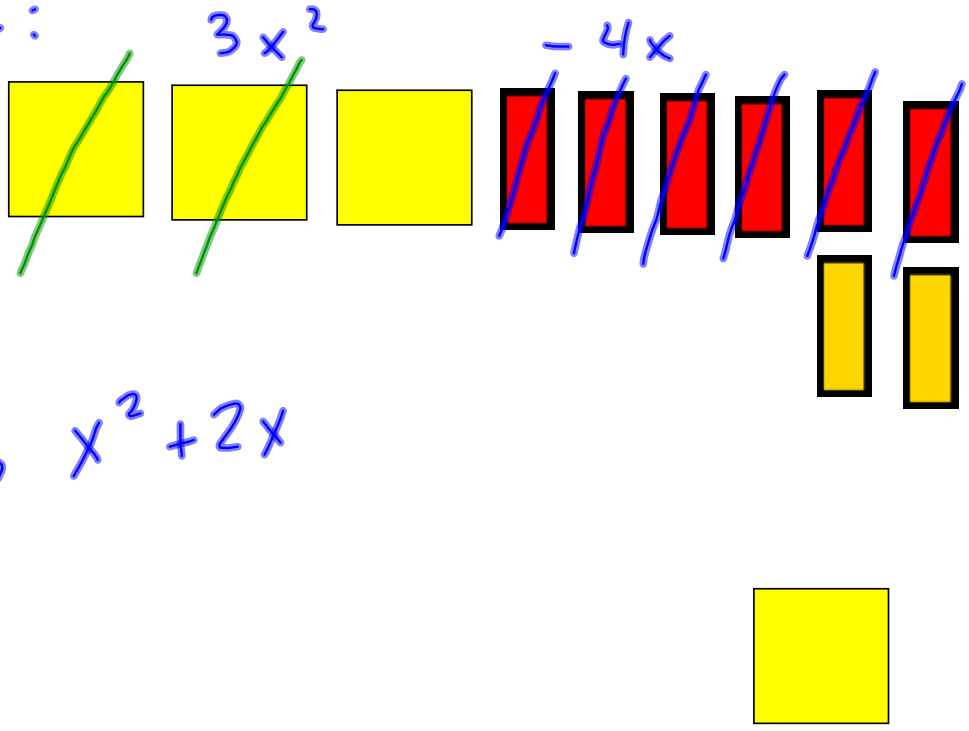
(2) Take away tiles based on the second polynomial.

(3) If there are not enough tiles to take away create zero pairs.

(4) Remove tiles and state the polynomial of the remaining tiles.

Example #1: Subtract: $(3x^2-4x)-(2x^2-6x)$

Answer:

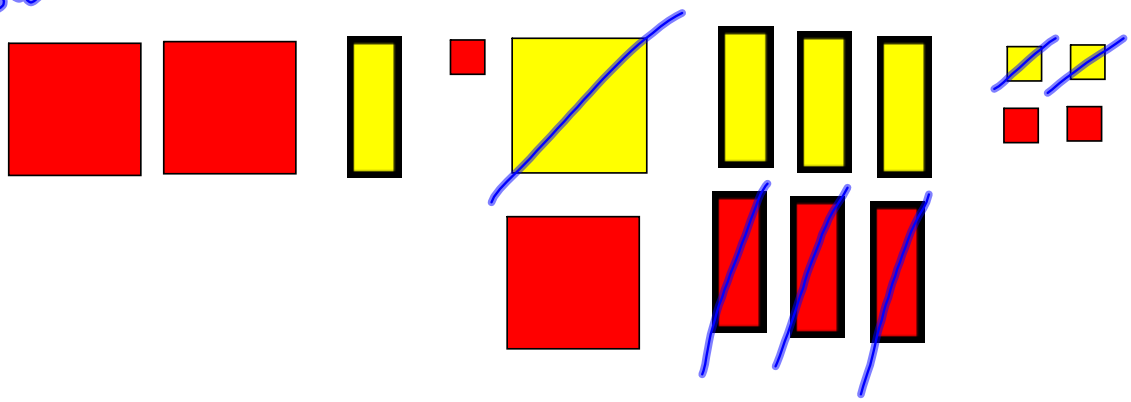


x^2+2x

Ex #2: Subtract the following polynomials:

$(-2x^2+x-1) - (x^2-3x+2)$

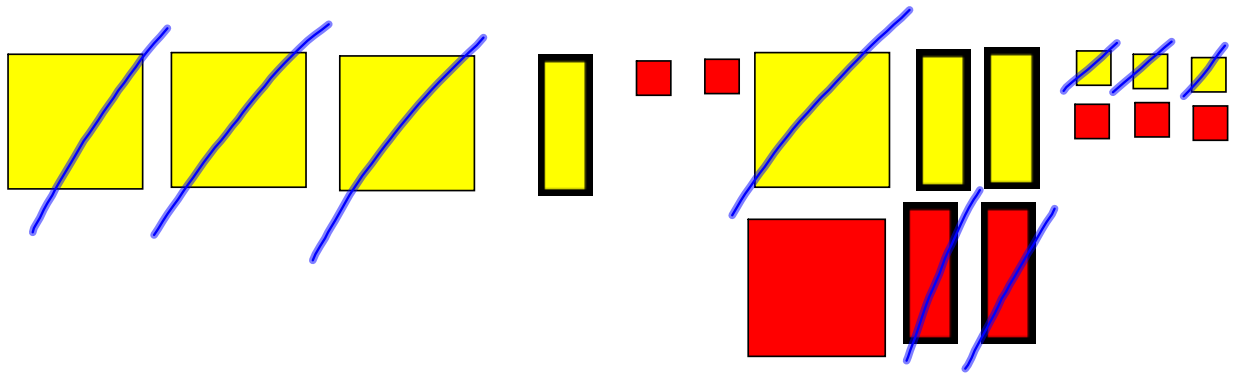
Answer:



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

Ex #3: Determine the difference:

$(3c^2 + c - 2) - (4c^2 - 2c + 3)$



Ans) $-c^2 + 3c - 5$

Method 2: Subtracting without tiles:

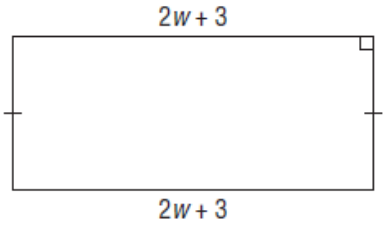
(1) Write the first polynomial as is.

(2) The subtraction sign will change to addition, and all signs of your second polynomial will also change.

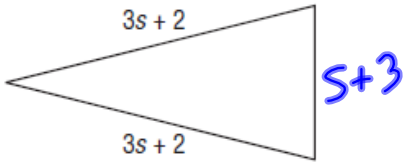
(3) Follow the addition rules.

13. The perimeter of each polygon is given. Determine each unknown length.

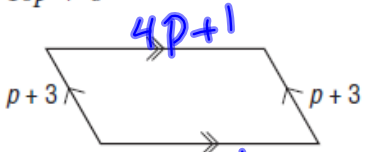
a) $6w + 14$



b) $7s + 7$



c) $10p + 8$



(A) $(2w+3)+(2w+3)$
$= 4w+6$

$(6w+14)-(4w+6)$
$= (6w+14)+(-4w-6)$
$= (6w-4w)+(14-6)$
$= 2w+8$ → Divide by 2

Each unknown side is $w+4$