

Name: _____

Period: _____

1. Write the polynomial difference modelled by each set of tiles.

a)	b)
c)	d)

2. Subtract these polynomials.

a) $\begin{array}{r} 7x^2 + 3x + 4 \\ - (5x^2 + 2x + 1) \end{array}$	b) $\begin{array}{r} 10x^2 - 3x + 5 \\ - (-8x^2 - 5x + 10) \end{array}$
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c) $\begin{array}{r} -4x^2 - 12x + 28 \\ - \\ \underline{4x^2 - 9x - 30} \end{array}$	d) $\begin{array}{r} -x^2 + 11x - 18 \\ - \\ \underline{8x^2 - 4x + 27} \end{array}$
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3. Subtract.

a) $(4x + 2) - (-2x + 3)$	b) $(-5x + 2) - (x^2 + x - 3)$
c) $(-2x^2 + 3x - 1) - (-x^2 + x + 3)$	d) $(-2x + x^2 - 4) - (3 - 2x^2 + 4x)$
e) $(24x - 12x^2 + 1) + (15 - 20x - 3x^2)$	f) $(x^2 - 3xy + y^2) - (-2xy + x^2 - y^2)$
g) $(-7x^3 - 3x^2) - (x^3 + 7x^2 + 11x) - (7x^3 + 4x^2 + 10x)$	

$$\text{h) } (-x^2y - 5xy - 16y) - (7x^2y + 15y - 10xy) - (-2xy + x^2y)$$

$$\text{i) } (10x^2y - 7xy^2 - 6xy + 18x) - (-7x + 9x^2y - 18y^2x - 4yx) - (-xy + 10yx^2)$$

4. Determine the answer to each of the following.

$$\text{a) } 9x - 7(4 - 7x)$$

$$\text{b) } -2(x - y) - (x + y)$$

$$\text{c) } 9(2xy + x + 2y) - 4(xy - 3x - 5y)$$

d) $-x(x+4)+2(x^2-3)-x(x^2-x)$

e) $-x(xy+y)+y(x-y)-xy(x+2)$

5. The perimeter of a triangle is $7y-3z$. Two sides are $4y+2z$ and $7z$. What is the other side?

6. The perimeter of a rectangle is $12w+8$ and the length is $4w-5$. What is the width?