Name: _____

Operations with Polynomials

1) Find each difference.

1) $3x - 4$ minus $2x + 3$

2) $5m^2 - m + 2$ minus $2m^2 + 2m + 5$

3) $11a^2 - 2a - 1$ minus $5a^2 + 6a + 2$

2) José designs picture frames in nonstandard sizes. The width of one rectangular frame is $2x + 5$ and the length is $5x - 9$.

1) What is the perimeter of this type of frame written as a polynomial?

2) What is the perimeter of the frame if $x = 7$ inches?

3) A garden located on the grounds of a new museum has width a and length $3a+7$.

1) Write an expression in simplest form for the perimeter of the garden.

2) If a is 12 feet, find the perimeter of the garden.

4) Simplify.

(1) $3p - 2q + p + q$
(2) $3p^2 + 2pq - q^2 - 7pq$
(3) $5p - 7q - 2p - 3q + 3pq$

5) Put the following together as much as possible.

(a) $3a + 2b + 5a + 7c - b - 4c$
(b) $3ab + b + 5a + 2b + 2ba$
© $7p + 3pq - 2p + 2pq + 8q$
(d) $5x + 2y - 3x + xy + 3y + 2xy$