

E. Use algebra tiles to model each polynomial. If you can, combine like terms. Sketch the tiles for the simplified polynomial.

1. $-5 + y^2$

2. $2x - 1$

3. $-3a^2 - 2a + 1$

4. $-2y^2 + 3y - 2$

5. $-2x^2 + 4 + x + 1 + 5x + 1 + 3x^2$

6. $3y + 7y^2 + 1 - y - 2y - 3y^2$

F. Circle the terms below that are like: $2w^2$.

$\frac{1}{8}w^2$ $-6w^2$ -2 $4w$ $3w^2$ $-w^2$ $11w$ 2

G. Simplify each polynomial.

1. $-4 + 2a + 7 - 4a$

2. $3p - 6 - 4p + 6$

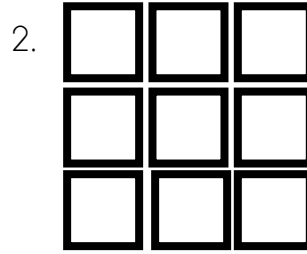
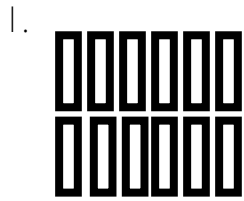
3. $3a^2 - 2a - 4 + 2a - 3a^2 + 5$

4. $7z - z^2 + 3 + z^2 - 7$

5. $d^2 + 3d + 1 + 4d^2 + 2$

6. $-6x^2 + 10x - 4 + 4 - 12x - 7x^2$

H. Write a polynomial to represent the perimeter of each rectangle.



I. Add these polynomials.

1. $(y^2 + 6y) + (-7y^2 + 2y)$

2. $(5n^2 + 5) - (-1 - 3n^2)$

3. $(y^2 + 6y - 5) + (-7y^2 + 2y - 2)$

4. $(-2n + 2n^2 + 2) - (-1 - 7n^2 + n)$

5. $(3m^2 + m) + (-10m^2 - m - 2)$

6. $(-d^2 + 2) - (-2 - 7d^2 + d)$

K. Add these polynomials.

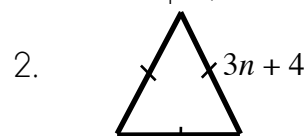
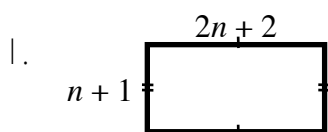
1. $(-7a + 5)$
 $+ (2a - 8)$

2. $(4m^2 - 3)$
 $- (-8m^2 - 1)$

3. $(r^2 - 4r + 3)$
 $+ (-r^2 - 2r - 3)$

4. $(3c^2 - 4c + 1)$
 $- (-2c^2 + 4c + 1)$

L. For each shape below, write the perimeter as a sum of polynomials in simplest form.



M. Divide

1. $(24r^3s^2t - 15rs^4t) \div 3rs$

2. $14y^3 - 12y^2 + 16y \div (-2y)$

3.
$$\frac{21m^6n^4 + 14m^3n^3 - 7m^2n^2}{-7mn}$$

4.
$$\frac{-18r^{5t^2} + 12r^3t + 3rt}{6rt}$$

N. Determine the length of each rectangle.

1. Area = $18x^4 + 12x^3 - 24x^2$
Width = $3x^2$

2. Area = $30x^3y + 40x^2y^4 - 70xy^3$
Width = $5xy$

O. Solve the following.

1. If $x=2$ then solve $3x^2 - 4x + 6$

2. If $x=(-4)$ then solve $-6x^2 + 8x - 6$

3. If $x=3y$ then solve
$$\frac{5x - 10y}{5y}$$
