

1. In each polynomial, identify:
the variable, number of terms, coefficients,
constant term, and degree.

	Variable	# of Terms	Coefficients	Constant	Degree
a) $3m - 5$					
b) $4r$					
c) $x^2 + 4x + 1$					

2. Create a polynomial that meets
these conditions:
trinomial in variable m , degree 2,
constant term is -5

3. Which polynomial is represented by each
set of algebra tiles? Is the polynomial a
monomial, binomial, or trinomial?
How do you know?



4. Use algebra tiles to represent each polynomial. Sketch the tiles you used.

a) $4n - 2$

b) $-t^2 + 4t$

c) $2d^2 + 3d + 2$

5. For each pair of monomials, which are like terms? Explain how you know.

a) $2x, -5x$

c) $10, 2$

e) $8x^2, 3x$

b) $3, 4g$

d) $2q^2, -7q^2$

f) $-5x, -5x^2$

6. Simplify $3x^2 - 7 + 3 - 5x^2 - 3x + 5$.



7. Renata simplified a polynomial and got $4x^2 + 2x - 7$. Her friend simplified the same polynomial and got $-7 + 4x^2 + 2x$. Renata thinks her friend's answer is wrong. Do you agree? Explain.

8. Cooper thinks that $5x - 2$ simplifies to $3x$. Is he correct? Explain.

9. Identify the equivalent polynomials.

Justify your answers.

	Simplified	proper order
a) $1 + 3x - x^2$		
b) $1 + 3x^2 - x^2 + 2x - 2x^2 + x - 2$		
c) $x^2 - 3x - 1$		
d) $6 + 6x - 6x^2 - 4x - 5 + 2x^2 + x^2 - 4$		
e) $3x - 1$		
f) $-3x^2 + 2x - 3$		
g) $6x^2 - 6x - 6 + x - 5x^2 - 1 + 2x + 4$		
h) $3x - x^2 + 1$		

10. Simplify

a) $(4f^2 - 4f) + (-2f^2)$

b) $(3r^2 + 2r + 5) + (-7r^2 + r - 3)$

c) $(-2v + 5) - (-9v + 3)$

d) $(-2g^2 - 12) - (-6g^2 + 4g - 1)$

11. Add or subtract. Use a strategy of your choice.

a) $(3w^2 + 17w) + (12w^2 - 3w)$

b) $(5m^2 - 3) + (m^2 + 3)$

c) $(-3h - 12) - (-9h - 6)$

d) $(6a^2 + 2a - 2) + (-7a^2 + 4a + 11)$

e) $(3y^2 + 9y + 7) - (2y^2 - 4y + 13)$

f) $(-14 + 3p^2 + 2p) - (-5p + 10 - 7p^2)$

12. a) Which polynomial must be added to $5x^2 + 3x - 2$ to get $7x^2 + 5x + 1$?

b) Which polynomial must be subtracted from $5x^2 + 3x - 2$ to get $7x^2 + 5x + 1$? Justify your answers.