## Section 5.1

## Page 214-216

4. Which of the following expressions are polynomials?

a) 
$$2 + 3n$$

c) 
$$-5m + 1 + 2m^2$$

e) 
$$\frac{1}{x^2} + \frac{1}{x} + 1$$

b) 
$$3\sqrt{x}$$

f) 
$$\frac{1}{2}s$$

5. Is each expression a monomial, binomial, or trinomial?

a) 
$$3t + 4t^2 - 2$$

b) 
$$5 - 3g$$

Name the coefficient, variable, and degree of each monomial.

	Coefficient	variable	degree
a) −7 <i>x</i>			
c) <i>m</i>			
<b>b)</b> 14a <sup>2</sup>			
d) 12			

7. Identify the degree of each polynomial.

a) 
$$7j^2 + 4$$

c) 
$$2 - 5p + p^2$$

**8.** Identify the polynomials that can be represented by the same set of algebra tiles.

a) $x^2 + 3x - 4$				
b) $-3 + 4n - n^2$				
c) $4m - 3 + m^2$				
d) $-4 + r^2 + 3r$				
e) $-3m^2 + 4m - 3$				
f) $-h^2 - 3 + 4h$				

**9.** Name the coefficients, variable, and degree of each polynomial. Identify the constant term if there is one

term if there is one.	Coefficient	variable	degree	constant
a) $5x^2 - 6x + 2$				
c) $12c^2 + 2$				
e) 18				
b) 7 <i>b</i> − 8				
d) 12 <i>m</i>				
f) $3 + 5x^2 - 8x$				

- **10.** One student says, "4a is a monomial." Another student says, "4a is a polynomial." Who is correct? Explain.
- **11.** Use algebra tiles to model each polynomial. Sketch the tiles.
- a) 4x 3

b) -3n - 1

c)  $2m^2 + m + 2$ 

Match each polynomial with its corresponding algebra tile model.

a) 
$$r^2 - r + 3$$

b) 
$$-t^2 - 3$$

c) 
$$-2\nu$$

d) 
$$2w + 2$$

e) 
$$2s^2 - 2s + 1$$



Model B



Model C

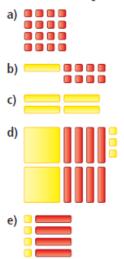


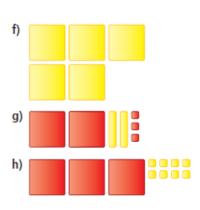
Model D



Model E

13. Which polynomial does each collection of algebra tiles represent?
Is the polynomial a monomial, binomial, or trinomial? Explain.





- **14.** Write a polynomial with the given degree and number of terms. Use algebra tiles to model the polynomial. Sketch the tiles.
  - a) degree 1, with 2 terms

c) degree 2, with 1 term