

# Chapter 13 Assessment • Form A

Circle the letter of the best answer.

- The expression  $5y^2 + 3y + x$  is which of the following?  
**A.** a monomial      **B.** a binomial      **C.** not a polynomial      **D.** a trinomial
- Evaluate  $5m - 2n$  for  $m = -3$  and  $n = -2$ .  
**F.** -19      **G.** -11      **H.** 19      **J.** 11
- Simplify  $(4x + 1) + (-3x + 9)$ .  
**A.**  $x + 10$       **B.**  $7x - 8$       **C.**  $7x + 10$       **D.**  $x - 8$
- Simplify  $(b^2c + 7bc - 3) - (12b^2c - 2bc + 5)$ .  
**F.**  $-11bc^2 + 9bc - 8$       **G.**  $-11b^2c + 9bc - 8$   
**H.**  $13b^2c + 5bc + 2$       **J.**  $-11b^2c + 5bc + 2$
- Simplify  $3fg(f^2g + 5f - 4)$ .  
**A.**  $3f^2g^2 + 15fg - 12$       **B.**  $3f^3g^3 + 15f^2g - 12$   
**C.**  $3f^3g^2 + 15f^2g - 12$       **D.**  $3f^3g^2 + 15f^2g - 12fg$

Tell whether each sequence is *arithmetic*, *geometric*, or *neither*. Find the next three terms of each sequence. Write a rule to describe the sequence.

6. -3, -12, -48, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ type: \_\_\_\_\_

rule: \_\_\_\_\_

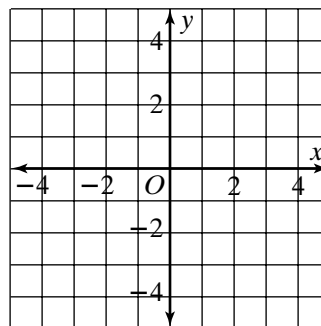
7. 6, 11, 16, 21, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_ type: \_\_\_\_\_

rule: \_\_\_\_\_

Complete the table and graph each function.

8.  $y = -x^2 + 2$

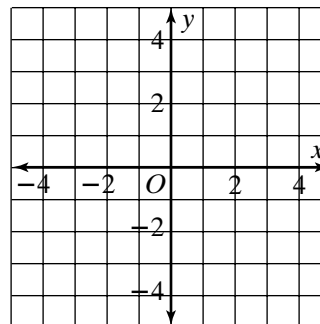
$x$	$y = -x^2 + 2$	$(x, y)$
-2		
-1		
0		
1		
2		



# Chapter 13 Assessment Form A (continued)

9.  $y = \frac{1}{2}|x| - 4$

$x$	$y = \frac{1}{2} x  - 4$	$(x, y)$
-4		
-2		
0		
2		
4		



**Simplify.**

10.  $(n^2 - 3n + 1) - (4n^2 + n - 5)$  \_\_\_\_\_

11.  $4y^2z(2y + 3z - 5)$  \_\_\_\_\_

12.  $(x - 8)(x + 5)$  \_\_\_\_\_

13.  $(d - 2b)(d + 4b)$  \_\_\_\_\_

**Write each expression as the product of a monomial and a polynomial.**

14.  $10x^2 - 15x + 25$  \_\_\_\_\_

15.  $9x^3 - 6x^2 - 15x$  \_\_\_\_\_

16. Joe remembered that the three digits in his locker combination were 3, 5, and 7, but he forgot the order of the numbers. What is the maximum number of combinations he must check in order to open his lock? What are they?

\_\_\_\_\_

17. Describe the relationship between a binomial and a polynomial.

\_\_\_\_\_

\_\_\_\_\_