

## Evaluation of Functions

**MULTIPLE CHOICE.** Choose the one alternative that best completes the statement or answers the question.

**Find the value for the function.**

1) Find  $f(2)$  when  $f(x) = x^2 + 3x - 7$ . 1) \_\_\_\_\_  
A) 5                                      B) -9                                      C) 3                                      D) 17

2) Find  $f(-x)$  when  $f(x) = -2x^2 + 3x + 3$ . 2) \_\_\_\_\_  
A)  $-2x^2 - 3x - 3$                       B)  $2x^2 - 3x + 3$                       C)  $2x^2 - 3x - 3$                       D)  $-2x^2 - 3x + 3$

3) Find  $f(-1)$  when  $f(x) = \frac{x^2 - 5}{x + 3}$ . 3) \_\_\_\_\_  
A) -2                                      B)  $\frac{1}{2}$                                       C) 3                                      D)  $\frac{3}{2}$

4) Find  $f(-9)$  when  $f(x) = |x| - 6$ . 4) \_\_\_\_\_  
A) -15                                      B) -3                                      C) 3                                      D) 15

5) Find  $f(-x)$  when  $f(x) = \frac{x}{x^2 + 5}$ . 5) \_\_\_\_\_  
A)  $\frac{-x}{x^2 + 5}$                                       B)  $\frac{x}{-x^2 + 5}$                                       C)  $\frac{-x}{-x^2 + 5}$                                       D)  $\frac{-x}{x^2 - 5}$

6) Find  $f(2x)$  when  $f(x) = 2x^2 - 5x - 5$ . 6) \_\_\_\_\_  
A)  $8x^2 - 10x - 10$                                       B)  $8x^2 - 10x - 5$   
C)  $4x^2 - 10x - 5$                                       D)  $4x^2 - 10x - 10$

7) Find  $f(2x)$  when  $f(x) = 2x^2 - 4x + 2$ . 7) \_\_\_\_\_  
A)  $8x^2 - 8x + 4$                                       B)  $8x^2 - 8x + 2$                                       C)  $4x^2 - 8x + 4$                                       D)  $4x^2 - 8x + 2$

8) Find  $f(2x)$  when  $f(x) = \sqrt{3x^2 + 5x}$ . 8) \_\_\_\_\_  
A)  $\sqrt{6x^2 + 10x}$                                       B)  $2\sqrt{3x^2 + 5x}$                                       C)  $\sqrt{6x^2 + 20x}$                                       D)  $\sqrt{12x^2 + 10x}$

9) Find  $f(x + h)$  when  $f(x) = -2x^2 + 2x - 2$ . 9) \_\_\_\_\_  
A)  $-2x^2 - 2h^2 + 2x + 2h - 2$                                       B)  $-2x^2 - 2h^2 - 2x - 2h - 2$   
C)  $-2x^2 - 4xh - 2h^2 + 2x + 2h - 2$                                       D)  $-2x^2 - 2xh - 2h^2 + 2x + 2h - 2$

10) Find  $f(x + h)$  when  $f(x) = \frac{-2x + 5}{5x + 6}$ . 10) \_\_\_\_\_  
A)  $\frac{-2x - 2h + 5}{5x + 5h + 6}$                                       B)  $\frac{-2x + 3h}{5x + 11h}$                                       C)  $\frac{-2x - 2h + 5}{5x + 6}$                                       D)  $\frac{-2x + 5h}{5x + 6h}$

Answer Key

Testname: EVALUATION OF FUNCTIONS

- 1) C
- 2) D
- 3) A
- 4) C
- 5) A
- 6) B
- 7) B
- 8) D
- 9) C
- 10) A