5.1 Exercises Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evaluating Functions and Average Rate of Change

SHOW WORK! Complete on separate paper.

For items 1 – 6, find each of the following:

1. f(0)
2. f(-1)
3. f(2x)
4. f(x + 3)
5. f(x) = 2x – 1
6. f(x) = -x + 3
7. f(x) = x2 + 4x – 5
8. f(x) = 3x2 + 2x
9. f(x) = x3 – 5
10. f(x) = 2x3 + 5x
11. Find the average rate of change of f(x) = -2x2 + 4
12. From 0 to 2
13. From 1 to 3
14. From 1 to 4
15. Find the average rate of change of f(x) = x3 – 2x + 1
16. From -3 to -2
17. From -1 to 1
18. From 1 to 3
19. g(x) = x2 + 1

Write the equation of the secant line containing (-2, g(-2)) and (2, g(2)).

1. h(x) = -2x2 + x

Write an equation of the secant line containing (0, (h(0)) and (3, h(3)).