Lesson 1.4 Practice: Combining and Composing Functions

School Launch · Algebra II · Unit 1: Functions and Their Graphs · Worksheet A

Calculator for decimals

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. $f(x) = 3 - 4x$, $g(x) = 2x$. Find $(f + g)(-3)$ and $(fg)(-3)$. EASY

2. $f(x) = 1 - x$, $g(x) = -3x$. Find $(f + g)(0)$ and $(fg)(0)$. EASY

3. $f(x) = 4 - 3x$, $g(x) = -3x$. Find $(f + g)(-2)$ and $(fg)(-2)$. EASY

4. $f(x) = 5 - x$ and $g(x) = x^2 - 2$. Find $f(g(x))$, $g(f(x))$ and $f(g(1))$. MEDIUM

5. $f(x) = 2x + 1$ and $g(x) = x^2 + 3$. Find $f(g(x))$, $g(f(x))$ and $f(g(-3))$. MEDIUM

6. $f(x) = 2x + 1$ and $g(x) = x^2 - 3$. Find $f(g(x))$, $g(f(x))$ and $f(g(-1))$. MEDIUM

7. $f(x) = x$ and $g(x) = x^2 + 2$. Find $f(g(x))$, $g(f(x))$ and $f(g(-2))$. MEDIUM

8. $f(x) = 2x - 4$ and $g(x) = x^2 + 2$. Find $f(g(x))$, $g(f(x))$ and $f(g(-2))$. HARD

9. $f(x) = -4x - 4$ and $g(x) = x^2 - 2$. Find $f(g(x))$, $g(f(x))$ and $f(g(3))$. HARD

10. $f(x) = 5 - 2x$ and $g(x) = x^2 - 3$. Find $f(g(x))$, $g(f(x))$ and $f(g(2))$. HARD