Name _____ Class _____ Date _____

1-8 Homework

Inverses in Context & Function Operations

#1 To make a long-distance call, your phone company charges $1.50 to make the connection, and an additional $0.10 for every minute that you are on the line once connected.

a. Write an equation for the price of a long-distance call, p, in terms of the length of the call in minutes, m:

b. When you get the phone bill, you see that your sister made a long-distance call that cost $2.75. How long was she on the phone?

c. Think about how you solved part (b). Write an equation to determine m in terms of p. (That is, how do you calculate the length of a call based on its price?)

Operations on Functions

#2 $f(x) = x^2 - 6x + 2$ Find f(-2a)	#3 $f(x) = -2x^2 + 4x + 10$ $g(x) = 3x^2 + 11x - 7$ Find f(x)-g(x)
#4 $f(x) = -2x^2 + 4x + 10$ $g(x) = 3x^2 + 11x - 7$ Find f(x)+g(x)	#5 $f(x) = -2x^2 + 4x + 10$ $g(x) = 3x^2 + 11x - 7$ Find f(x) • g(x)
#6 $h(x) = 6x - 7$ Find h(a+b)	#7 $f(x) = x^2 - 6x + 2$ $g(x) = 9x - 1$ Find 2f(x) - 3g(x)

#8 $f(x) = x^2 - 6x + 2$ $g(x) = 9x - 1$ Find (f+g)(x)	#9 $f(x) = 3x^2 - 4$ Find 5[f(x+2)]

#10 Let $f(x) = x - 5$ and $g(x) = x^2$ Find $(g \circ f)(-3x)$	#11 Let $f(x) = x - 5$ and $g(x) = x^2$ Find $(f \circ g)(-3x)$
#11 Let $f(x) = x^2 + 4$ and $g(x) = 2x$ Find $(g \circ f)(-2)$	#12 Let $f(x) = x^2 + 4$ and $g(x) = 2x$ Find $(f \circ g)(-2)$
#13 Let $f(x) = x + 8$ and $g(x) = 2x$ Find $(f \circ g)(4c)$	#14 Let $f(x) = x + 8$ and $g(x) = 2x$ Find $(g \circ j)(4c)$
#15 Let $f(x) = x - 5$ and $g(x) = x^2$ Find $(f \circ g)(3n)$	#16 Let $f(x) = x - 5$ and $g(x) = x^2$ Find $(g \circ f)(3n)$