Meramec Math 160C Quiz 4 Fall 2010

NAME: _____Score_____/15

1. Fill in the blanks.

Problem:

Use the point-slope form of the equation of a line to determine the rule for the linear function f whose graph has slope 3 and passes through the point (2, – 7).

Process:

Use the point-slope formula _____ to obtain _____.

Solve that equation for y to obtain _____

Simplify (if necessary) that equation _____

Use function notation to write the rule for the function f. _____

2) Fill in the blanks

Problem:

Determine the rule for the linear function f whose graph has slope 3 and passes through the point (2, – 7). Do not use the point-slope formula.

Process:

Because the function is linear, its rule has the form _____.

The slope of the graph is 3, so the rule has the form _____ (*)

Because the point (2, –7) is on the graph of the function, f(2) = _____.

However, from equation (*) we obtain f(2) = _____.

We now have two expressions for the same quantity and from The _____ Property we conclude

they must be _____.

Therefore _____ = – 7 from which it follows that b = _____.

Use equation (*) and b = _____ to conclude

The rule for the function f is _____.