

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 \_\_\_\_\_.