



# Function Composition

Version 1

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Score: \_\_\_\_\_

Direction: Perform the indicated composition of function. Show all your work in the space provided.

1) If  $f(x) = x^2 + x - 2$  and  $g(x) = x - 1$ , find  $f \circ g$ .

2) If  $g(x) = \sqrt{x^2 - 5}$  and  $f(x) = \sqrt{-2x + 7}$ , find  $(g \circ f)(-1)$ .

3) If  $f(x) = \frac{1}{x-1}$ , find  $(f \circ f)(5)$ .



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1) If  $f(x) = x^2 + x - 2$  and  $g(x) = x - 1$ , find  $f \circ g$ .

$$f \circ g = x^2 - x - 2$$

2) If  $g(x) = \sqrt{x^2 - 5}$  and  $f(x) = \sqrt{-2x + 7}$ , find  $(g \circ f)(-1)$ .

$$(g \circ f)(-1) = 2$$

3) If  $f(x) = \frac{1}{x-1}$ , find  $(f \circ f)(5)$ .

$$(f \circ f)(5) = -\frac{4}{3}$$