

PreCalculus Bell Work

$$f(x) = \frac{1}{x} \quad g(x) = \sqrt{x}$$

Find $(f \circ g)(x)$

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85

$$f^{-1}(g(0))$$

$$g(\overset{x}{0}) = 2$$

$$f^{-1}(\overset{y}{2}) = 0$$

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Today we will decompose functions.

(Opposite of Compose. Find the two functions)

Shell is the outside - $f(x)$

$$(f \circ g)(x) = (x-5)^3$$

Find $f(x) = x^3$

$$g(x) = x-5$$

$$f(g(x)) = (\quad)^3$$

x^3

What is inside the shell?

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$$(f \circ g)(x) = \frac{1}{\sqrt{3x+2}}$$

Find $f(x) = \frac{1}{x}$ or $\frac{1}{\sqrt{x}}$
 $g(x) = \sqrt{3x+2}$ or $3x+2$

or $f(x) = \frac{1}{\sqrt{x+2}}$

$$g(x) = 3x$$

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$$(f \circ g)(x) = 9x^2 - 8$$

Find $f(x) = 9x - 8$ or $x^2 - 8$
 $g(x) = x^2$ or $3x$

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$$(f \circ g)(x) = (\underline{x+1})^2 + (\underline{x+1}) - 9$$

$$f(x) = x^2 + x - 9$$

$$g(x) = x + 1$$

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$$(f \circ g)(x) = 81x^2$$

$$f(x) = x^2 \quad \text{or} \quad 81x$$

$$g(x) = 9x \quad \text{or} \quad x^2$$

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Assignment
 Decomposition wkst and Piecewise wkst

Test is Thursday: EC is due Wednesday

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Quiz 1.1-1.4 6 short answer and 4 mc

1. Sketch a function and find domain and range.
2. Find indicated values of a piecewise function.
3. Find Difference Quotient.
4. Know Even or Odd Functions
5. Transform a function.

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6. Write an equation of a line parallel or perpendicular.
7. Find intervals of increasing, decreasing, or constant.
8. Be able to find values of a graphed function.

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Functions and Decomposition Wkst
Study for your Quiz Tomorrow

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