

Function Operations and Composition of Functions Bell work

1. Complete the following statement.

- a. $\left(\frac{f}{g}\right)(x) = \underline{\hspace{2cm}}$ where $g(x) \neq 0$
- b. The domain of the composite function $f \circ g$ is the set of all such that: _____ and _____.

2. Write T for true or F for false

- a. $(f * g)(x) = (f \circ g)(x)$
- b. $(f \circ g)(x) \neq (g \circ f)(x)$

Multiple Choices

3. If $f(x) = x$ and $g(x) = x + 3$, then $(f * g)(x)$ is:

- a. $x^2 + 3x$
- b. $x^2 + 3$
- c. $x + 3$

4. If $f(x) = 2x + 2$ and $g(x) = x - 1$, then $(f - g)(x)$ is:

- a. $x + 1$
- b. $x + 3$
- c. $x - 1$

5. If $f(x) = \sqrt[3]{x}$ and $g(x) = x^3$, then $(f \circ g)(x)$ is:

- a. 1
- b. x
- c. $-x$

Function Operations and Composition of Functions Bell work**ANSWERS**

1. Complete the following statement.

a. $\left(\frac{f}{g}\right)(x) = \frac{f(x)}{g(x)}$ where $g(x) \neq 0$

b. The domain of the composite function $f \circ g$ is the set of all such that: x is in the domain of g and $g(x)$ is in the domain of f .

2. Write T for true or F for false

a. $(f * g)(x) = (f \circ g)(x)$

F

b. $(f \circ g)(x) \neq (g \circ f)(x)$

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