

Composition of Functions

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

$g(x)$ is substituted in
for each x in $f(x)$

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EXAMPLES

$$f(x) = 3x + 2$$

$$g(x) = 2x - 7$$

$$k(x) = -4x + 9$$

$$h(x) = -5x - 8$$

$$f(g(x))$$

$$f(g(x)) = 3(\text{_____}) + 2$$

$$3(\text{_____}) + 2$$

$$g(f(x))$$

$$g(f(x)) = 2(\text{_____}) - 7$$

$$2(\text{_____}) - 7$$

$$k(h(x))$$

$$k(h(x)) = -4(\text{_____}) + 9$$

$$-4(\text{_____}) + 9$$

$$h(k(x))$$

$$h(k(x)) = -5(\text{_____}) - 8$$

$$-5(\text{_____}) - 8$$
