Name: _____

# Composition of Two Functions

L1S1

A) If $f(x) = x + 1$, $g(x) = 5x^2$ and $h(x) = -6$, find the following.

1) $g(f(x))$

2) $f(h(x))$

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B) If $f(x) = 7$, $g(x) = 2x$ and $h(x) = -3x - 8$, find the following.

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

2) $(h \circ g)(x)$

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C) If $f(x) = 8x - 1$, $g(x) = x$, find the following.

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

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

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3) Is $(f \circ g)(x) = (g \circ f)(x)$?

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D) 1) If $f(x) = -x + 15$ and $g(x) = 2x^2 + 9$, which of the following represents $f(g(x))$?

i) $-2x^2 + 6$ ii) $-2x - 24$ iii) $2x + 24$ iv) $-2x^2 - 6$

2) If $g(x) = 6x$ and $h(x) = 10$, which of the following represents $(g \circ h)(x)$?

i) $10x$ ii) 60 iii) $6x$ iv) 36