Name: _____

MS2

# Evaluating Composition of Two Functions

A) If $f(x) = 7$, $g(x) = -9x$ and $h(x) = x(x - 3) - 4$, evaluate the following.

1) $h\left(g\left(-\frac{1}{9}\right)\right)$

2) $f\left(h\left(\frac{5}{3}\right)\right)$

B) If $g(x) = 3x^3$, $f(x) = \sqrt[3]{4x + 1}$ and $h(x) = \frac{-12}{8x - 1}$, evaluate the following.

1) $(g \circ f)\left(\frac{9}{4}\right)$

C) If $h(x) = 5$ and $g(x) =$

1) $(h \circ g)\left(-\frac{3}{8}\right)$

3) Is $(h \circ g)\left(-\frac{3}{8}\right) = (g \circ$

D) 1) If $f(x) = 6\log_e x$ and $h(x) = e^x$, which of the following represents $f\left(h\left(\frac{1}{3}\right)\right)$?

i) 12 ii) 9 iii) 2 iv) 3

2) If $g(x) = 17$ and $f(x) = 5x^6 - 3x^4$, which of the following represents $(g \circ f)\left(-\frac{1}{5}\right)$?

i) 17 ii) 13 iii) –17 iv) 11

Name: _____ **Answer key**

MS2

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**–6** **7**

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C) If $h(x) = 5$ and $g(x) =$

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**5** **5**

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