

Evaluating Composition of Three Functions

A) If $f(x) = 16^x$, $g(x) = \log_4 x$ and $h(x) = x^2$, evaluate the following.

1) $g(f(h(-12)))$

2) $h(g(f(1)))$

B) If $f(x) = 5x - 17$, $g(x) = 3$ and $h(x) = -2x^2 - 4x - 15$, evaluate the following.

1) $(h \circ f \circ g)(0)$

C) If $f(x) = -\frac{5x^2}{16}$, $g(x) =$

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1) $(g \circ (f \circ h))(19)$

3) $Is (g \circ (f \circ h))(19) =$

D) 1) If $f(x) = x + 1$, $g(x) = \sqrt{4x}$ and $h(x) = \frac{1}{x + 12}$, which of the following represents $h(g(f(8)))$?

i) 2

ii) 6

iii) 4

iv) 9

2) If $f(x) = 8x - 7$, $g(x) = x^2 + 6x$ and $h(x) = -7x^6$, which of the following represents $(g \circ h \circ f)(1)$?

i) 6

ii) 7

iii) -7

iv) -6

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Evaluating Composition of Three Functions

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2) $h(g(f(1)))$

_____ **288**

_____ **4**

B) If $f(x) = 5x - 17$, $g(x) = 3$ and $h(x) = -2x^2 - 4x - 15$, evaluate the following.

1) $(h \circ f \circ g)(0)$

_____ **-15**

_____ **-2**

C) If $f(x) = -\frac{5x^2}{16}$, $g(x) =$

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the following.

1) $(g \circ (f \circ h))(19)$

_____ **160**

_____ **60**

3) Is $(g \circ (f \circ h))(19) =$

_____ **False**

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