

## Evaluating Composition of Three Functions

A) If  $f(x) = 1$ ,  $g(x) = \frac{4}{x}$  and  $h(x) = x^5 - 2x^4 + x^3 - x^2 + 5$ , evaluate the following.

1)  $h(f(g(-4)))$

2)  $g(h(f(15)))$

\_\_\_\_\_

\_\_\_\_\_

B) If  $f(x) = e^x$ ,  $g(x) = 8x$  and  $h(x) = x^3 + 3$ , evaluate the following.

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

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

\_\_\_\_\_

\_\_\_\_\_

C) If  $f(x) = x^4 + x$ ,  $g(x) =$

**PREVIEW**  
Gain complete access to the largest  
collection of worksheets in all subjects!

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

Members, please  
log in to  
download this  
worksheet.

Not a member?  
Please sign up to  
gain complete  
access.

\_\_\_\_\_

\_\_\_\_\_

3) Is  $(h \circ (g \circ h))(0) =$

[www.mathworksheets4kids.com](http://www.mathworksheets4kids.com)

\_\_\_\_\_

D) 1) If  $f(x) = 4x + 5$ ,  $g(x) = x - 10$  and  $h(x) = -5$ , which of the following represents  $(f \circ h \circ g)(-17)$ ?

i) -3

ii) 16

iii) 7

iv) -7

2) If  $f(x) = \sqrt{3}$ ,  $g(x) = 7x^2 + 17$  and  $h(x) = -2x + 1$ , which of the following represents  $g(f(h(3)))$ ?

i) -17

ii) 38

iii) -38

iv) 17