Name: _____

Composition of Two Functions

A) If $f(x) = \sqrt{3}$, $g(x) = \frac{6}{x^2}$ and $h(x) = 2x^4 - 8x^2$, find the following.

1) $g(f(t))$

2) $h(f(b^2))$

B) If $f(x) = x - 3$, $g(x) = e^{5x}$ and $h(x) = \log_e x$, find the following.

1) $(g \circ h)(3 - d)$

C) If $f(x) = -x$ and $h(x) =$

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

3) Is $(h \circ f)(2v) = (f \circ$

D) 1) If $f(x) = -x + 11$ and $g(x) = 7x$ + 13, which of the following represents $f(g(-c))$?

i) $7c^3 - 2$ ii) $7c^3 + 2$ iii) $-7c^3 - 2$ iv) $-7c^3 + 2$

2) If $g(x) = x^2 + 4$ and $h(x) = \sqrt{x - 5}$, which of the following represents $(g \circ h)(w + 6)$?

i) $-w + 5$ ii) $w - 5$ iii) $w + 5$ iv) $-w - 5$

Name: _____ **Answer key**

Composition of Two Functions

Sheet 2

A) If $f(x) = \sqrt{3}$, $g(x) = \frac{6}{x^2}$ and $h(x) = 2x^4 - 8x^2$, find the following.

1) $g(f(t))$

2) $h(f(b^2))$

2 **–6**

B) If $f(x) = x - 3$, $g(x) = e^{5x}$ and $h(x) = \log_e x$, find the following.

1) $(g \circ h)(3 - d)$

(3 – *d*) **– 5**

C) If $f(x) = -x$ and $h(x) =$

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

$16v^4 + 8v$ **$+ 8v - 1$**

3) Is $(h \circ f)(2v) = (f \circ$ **lse**

D) 1) If $f(x) = -x + 11$ and $g(x) = 7x$ + 13, which of the following represents $f(g(-c))$?

i) $7c^3 - 2$ ii) $7c^3 + 2$ iii) $-7c^3 - 2$ iv) $-7c^3 + 2$

2) If $g(x) = x^2 + 4$ and $h(x) = \sqrt{x - 5}$, which of the following represents $(g \circ h)(w + 6)$?

i) $-w + 5$ ii) $w - 5$ iii) $w + 5$ iv) $-w - 5$