Name : _____

# Function Operations

Mul/Div: ES3

A) 1) If $f(x) = 6x + 12$ and $g(x) = x^2 + 6x + 8$, find $\left(\frac{g}{f}\right)(x)$.

2) If $f(x) = -x + 1$ and $g(x) = -x^2 + 4x$, find $f(x) \cdot g(x)$.

B) If $f(x) = 5x^2 - 2x - 7$ and $g(x) = 5x - 7$ ; find the following.

i) $(g \cdot f)(x)$

ii) $\frac{f(x)}{g(x)}$

C) 1) If $f(x) = x^3 + 3$ and $g$ ... and $g(x) = 8x + 15$, find $\frac{g(2)}{f(2)}$.

D) If $f(x) = 2x + 9$ and $g(x)$ ...

i) $f(-1) \cdot g(-1)$



E) 1) Which of the following represents $\left(\frac{f}{g}\right)(x)$, if $f(x) = -14$ and $g(x) = -7x^2$?

i) $\frac{x^2}{7}$ ii) $\frac{7}{x^2}$ iii) $\frac{2}{x^2}$ iv) $\frac{x^2}{2}$

2) Which of the following represents $g(7) \cdot f(7)$, if $f(x) = -5 + x$ and $g(x) = -9 + 3x^2$?

i) 276 ii) 378 iii) 243 iv) 294