Name : _____

Function Operations

MS2

A) 1) If $f(x) = \frac{8}{5} - 2x + x^2$ and $g(x) = x - \frac{7}{5}$, find $(f - g)(x)$.

2) If $f(x) = x^2 + 6x$ and $g(x) = \frac{5}{2}x - 4$, find $g(x) \cdot f(x)$.

B) If $f(x) = -9x^3 + \frac{2}{3}x$ and $g(x) = \frac{1}{3}x$; find the following.

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

ii) $(g + f)(x)$

C) 1) If $f(x) = 5x^2 - 8$ and g … $g(x) = -14$, find $f(8) - g(8)$.

D) If $f(x) = -\frac{3}{2} + x$ and $g(x$…

i) $f(4) + g(4)$

E) 1) Which of the following represents $(f \cdot g)(x)$, if $f(x) = 8x$ and $g(x) = \frac{3}{8} - 2x^3$?

i) $8x^4 + 6x$ ii) $-8x^4 + 6x$ iii) $-16x^4 + 3x$ iv) $16x^4 + 3x$

2) Which of the following represents $(g - f)(-9)$, if $f(x) = -x + 10$ and $g(x) = -\frac{2}{9}x + x^2$?

i) 81 ii) 64 iii) 102 iv) 66

Name : _____

Answer key

MS2

Function Operations

A) 1) If $f(x) = \frac{8}{5} - 2x + x^2$ and $g(x) = x - \frac{7}{5}$, find $(f - g)(x)$.

$x^2 - 3x + 3$

2) If $f(x) = x^2 + 6x$ and $g(x) = \frac{5}{2}x - 4$, find $g(x) \cdot f(x)$.

$\frac{5}{2}x^3 + 11x^2 - 24x$

B) If $f(x) = -9x^3 + \frac{2}{3}x$ and $g(x) = \frac{1}{3}x$; find the following.

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

$-27x^2 +$

ii) $(g + f)(x)$

$+ x$

C) 1) If $f(x) = 5x^2 - 8$ and g … $d\ g(x) = -14$, find $f(8) - g(8)$.

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D) If $f(x) = -\frac{3}{2} + x$ and $g(x$

i) $f(4) + g(4)$

$-\frac{13}{2}$ or -

$2\frac{10}{13}$

E) 1) Which of the following represents $(f \cdot g)(x)$, if $f(x) = 8x$ and $g(x) = \frac{3}{8} - 2x^3$?

i) $8x^4 + 6x$ ii) $-8x^4 + 6x$ iii) $-16x^4 + 3x$ iv) $16x^4 + 3x$

2) Which of the following represents $(g - f)(-9)$, if $f(x) = -x + 10$ and $g(x) = -\frac{2}{9}x + x^2$?

i) 81 ii) 64 iii) 102 iv) 66