

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 $g(x) = -14$,
find $f(8) - g(8)$.

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

D) If $f(x) = -\frac{3}{2} + x$ and $g(x) = 4x - 1$,
find $f(4) + g(4)$.

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

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Function Operations

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

$$\underline{x^2 - 3x + 3}$$

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

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

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

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

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

$$\underline{-27x^2 +}$$

$$\underline{+ x}$$

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

$$\underline{285}$$

D) If $f(x) = -\frac{3}{2} + x$ and $g(x) = \frac{1}{2}x - 1$,
find $f(4) + g(4)$.

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

$$\underline{-\frac{13}{2} \text{ or } -6.5}$$

$$\underline{2\frac{10}{13}}$$

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