

1) If $f(x) = -x^2 - \frac{1}{5}$ and $g(x) = \frac{5}{7}x$; find the following.

i) $(g \cdot f)(q^2)$

ii) $f(-y) - g(-y)$

2) If $f(x) = 3x^2 + 12$ and $g(x) = x^3 + 4x$; find the following.

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

ii) $(f + g)(3t)$

3) If $f(x) = -4 - x^3$ and $g(x) = 2x^2 + 3x - 1$

i) $(g - f)(u + 1)$

4) If $f(x) = -x^2 + 3x + 1$ and $g(x) = 2x^2 - 5x + 3$

i) $g(6s + 5) + f(6s + 5)$

5) Which of the following represents $f(2a) \cdot g(2a)$, if $f(x) = -6 - x$ and $g(x) = 9$?

i) $18d - 54$

ii) $-9d + 12$

iii) $9d - 12$

iv) $-18d - 54$

6) Which of the following represents $g(n^2) + f(n^2)$, if $f(x) = x + 1$ and $g(x) = -2 + x$?

i) $2n^2 - 1$

ii) $n^2 + 2$

iii) $n^2 - 2$

iv) $2n^2 + 1$

PREVIEW

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Function Operations

1) If $f(x) = -x^2 - \frac{1}{5}$ and $g(x) = \frac{5}{7}x$; find the following.

i) $(g \cdot f)(q^2)$

ii) $f(-y) - g(-y)$

$$-\frac{5}{7}q^6 - \frac{1}{7}q^2$$

$$-y^2 + \frac{5}{7}y - \frac{1}{5}$$

2) If $f(x) = 3x^2 + 12$ and $g(x) = x^3 + 4x$; find the following.

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

ii) $(f+g)(3t)$

$$\frac{r}{3}$$

PREVIEW

$$+ 12t + 12$$

3) If $f(x) = -4 - x^3$ and $g(x) = x^3 + 3x^2 + 1$

i) $(g-f)(u+1)$

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$$u^3 + 3u^2 + 1$$

$$+ 32c$$

4) If $f(x) = -x^2 + 3x + 1$ and $g(x) = 6x^2 - 12x + 5$

i) $g(6s+5) + f(6s+5)$

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$$-36s^2 -$$

$$- 2$$

5) Which of the following represents $f(2a) \cdot g(2a)$, if $f(x) = -6 - x$ and $g(x) = 9$?

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