# Adding and Subtracting Functions

**Perform the indicated operation.**

1) $f(x) = 2x + 3$

$g(x) = x + 7$

Find $(f - g)(2)$

2) $g(a) = -5a - 8$

$f(a) = -3a - 5$

Find $(g - f)(-2)$

3) $h(t) = 4t + 3$

$g(t) = 4t + 7$

Find $(h - g)(t)$

4) $g(a) = -6a - 10$

$f(a) = 3a^2 + 9$

Find $(g - f)(x)$

5) $g(x) = \frac{5}{6}x - 23$

$h(x) = \frac{5}{12}x + 25$

Find $g(12) - h(12)$

6) $h(x) = \sqrt{3x} - 2$

$g(x) = \sqrt{3x} + 5$

Find $(h + g)(12)$

7) $f(x) = x^{-1}$

$g(x) = x^2 + \frac{5}{x}$

Find $(f - g)(-3)$

8) $h(n) = n^2 + 2$

$g(n) = -4n + 6$

Find $(h - g)(2a)$

9) $g(x) = -2x^2 - 5 - 4x$

$f(x) = 7 + 2x$

Find $(g - f)(3x)$

10) $g(t) = 11t - 4$

$f(t) = -2t^2 + 5$

Find $(g + f)(-t)$

11) $f(x) = 8x + 9$

$g(x) = -5x^2 + 3x$

Find $(f - g)(-x^2)$

12) $f(x) = -3x^4 - 5x$

$g(x) = 2x^4 + 5x + 22$

Find $(f + g)(3x^2)$

# Answers of Worksheets

**Adding and Subtracting Functions**

1) $-2$
2) $1$
3) $-4$
4) $-3x^2 - 6x - 19$
5) $-43$
6) $15$
7) $-7\frac{2}{3}$
8) $4a^2 + 8a - 4$
9) $-18x^2 - 18x - 12$
10) $-2t^2 - 11t + 1$
11) $5x^4 - 5x^2 + 9$
12) $-81x^8 + 22$