

**Operations on Functions: Adding and Subtracting Functions**

1

Find $(g - h)(x)$ when $g(x) = x^2 - 7x + 11$ and $h(x) = x^3 + 7x + 1$.

$$(g - h)(x) = \text{[input box]}$$

- A)** $x^3 - x^2 + 14x - 10$ **B)** $-x^3 + x^2 - 14x + 10$ **C)** $-x^3 + x^2 + 10$ **D)** $-14x + 10$

2

Find $(g - h)(x)$ when $g(x) = x^3 + 2x^2 - 8x$ and $h(x) = -3x^3 + 6x^2 + 5x - 9$.

$$(g - h)(x) =$$

- A)** $4x^3 - 4x^2 - 13x - 9$
B) $-2x^3 + 8x^2 - 3x - 9$
C) $4x^3 - 4x^2 - 13x + 9$
D) $-4x^3 + 4x^2 + 13x - 9$

3

If $g(x) = 3x^2 + 5$ and $h(x) = x^2 - 1$, find $(g - h)(x)$.

$$(g - h)(x) =$$

- A)** $8x^2 + 6$
B) $2x^2 + 4$
C) $2x^2 + 6$
D) $8x^2 + 4$