

Polynomial Functions, Graphs, and Compositions – Homework - Key

Evaluate the functions.

1. 43	2. -13
3. 34	4. -9

For the following functions, find $(f + g)(x)$ and $(f - g)(x)$

5. $2x^2 + x + 2$ $15x - 8$	6. $4x^2 - 3x - 7$ $2x^2 - 5x + 7$
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For the following functions, find $(f + g)(-2)$ and $(f - g)(5)$

7. 27 -37	8. 38 147
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9. Given $f(x) = x^2 - 3x$ and $g(x) = x - 2$ find the following:

a) $(f \circ g)(x) = x^2 - 7x + 10$

b) $(g \circ f)(x) = x^2 - 3x - 2$

c) $(f \circ g)(-2) = 28$

d) $(g \circ f)(3) = -2$

10. Given $f(x) = 6x + 5$ and $g(x) = 2x - 1$ find the following:

a) $(f \circ g)(x) = 12x - 1$

b) $(g \circ f)(x) = 12x + 9$

c) $(f \circ g)(-2) = -25$

d) $(g \circ f)(3) = 45$