You may have tried to simplify f(x) by first subtracting 12 - 5 to get $7x - x^3$. However, you have used an incorrect order of operations. Note that f(x) has unlike terms and cannot be simplified. Start with:

$$f(x) + g(x) = \left(12 - 5x - x^3\right) + \left(x^2 - 4x + 5\right)$$

Rearrange the terms and then combine like terms. The correct answer is $-x^3 + x^2 - 9x + 17$.