

$$\begin{aligned} f(x) + g(x) &= (12 - 5x - x^3) + (x^2 - 4x + 5) = \\ & -x^3 + x^2 - 5x - 4x + 12 + 5 \\ & = -x^3 + x^2 - 9x + 17 \end{aligned}$$