Math 163A Class Drill 2: Matching Polynomial Functions to their Graphs

For each function, circle the number of the corresponding graph.

(a) Function \( f(x) = x^3 - 9x^2 + 23x - 15 = (x - 1)(x - 3)(x - 5) \) is graph 1 2 3 4 5

(b) Function \( f(x) = x^3 - 11x^2 + 35x - 25 = (x - 1)(x - 5)^2 \) is graph 1 2 3 4 5

(c) Function \( f(x) = -x^3 + 9x^2 - 23x + 15 = -(x - 1)(x - 3)(x - 5) \) is graph 1 2 3 4 5

(d) Function \( f(x) = x^3 - 7x^2 + 7x + 15 = (x + 1)(x - 3)(x - 5) \) is graph 1 2 3 4 5

Graph 1  Graph 2  Graph 3  Graph 4  Graph 5