- Discuss the zeros and the features of the graph of $g(x) = x^2(x-3)^5$.

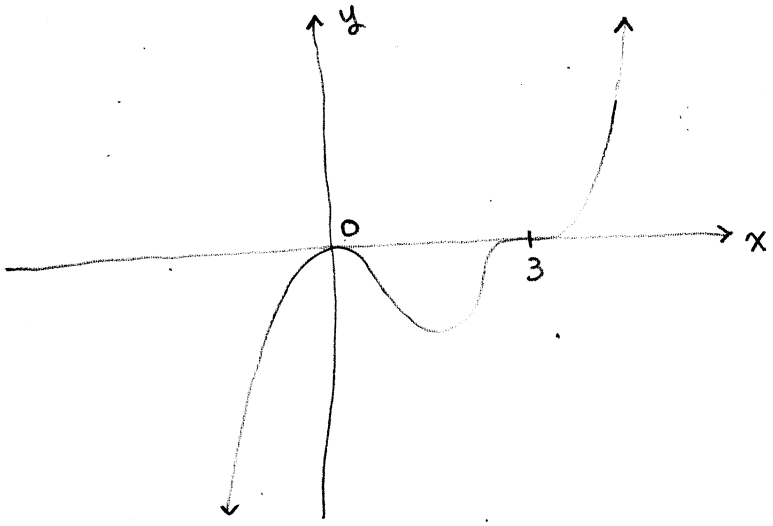
$X=0$ IS A ZERO OF MULTIPLICITY 2. GRAPH FLATTENS AND BOUNCES AT $X=0$.

$X=3$ IS A ZERO OF MULTIPLICITY 5. GRAPH FLATTENS AND CROSSES AT $X=3$.

g IS A DEGREE-7 POLYNOMIAL. THE LEADING TERM IS x^7 (FROM $x^2 \cdot x^5$) AND THE LEADING COEFFICIENT IS POSITIVE (FROM $1x^7$).

THE GRAPH GOES DOWN ON THE LEFT AND UP ON THE RIGHT.

VERY ROUGHLY, THE GENERAL SHAPE OF THE GRAPH IS



USE DESMOS, GEOGEBRA, OR YOUR GRAPHING CALCULATOR TO GET A GOOD GRAPH.