

Math 1513 - College Algebra

Quiz #16 - 2018.10.22

Solutions

Sketch a *rough* graph of the polynomial $p(x) = -2(x+1)^2(x-3)^3(5x+2)$. Be sure to use the multiplicity of the roots and the degree of the leading term, and the end behaviour to help you sketch the graph.

The roots are at $x = -1$, $x = 3$ and $x = -2/5$ with multiplicities 2, 3 and 1, respectively. The leading term is $-2x^6$ which means that the graph opens down both ways for end behaviour.

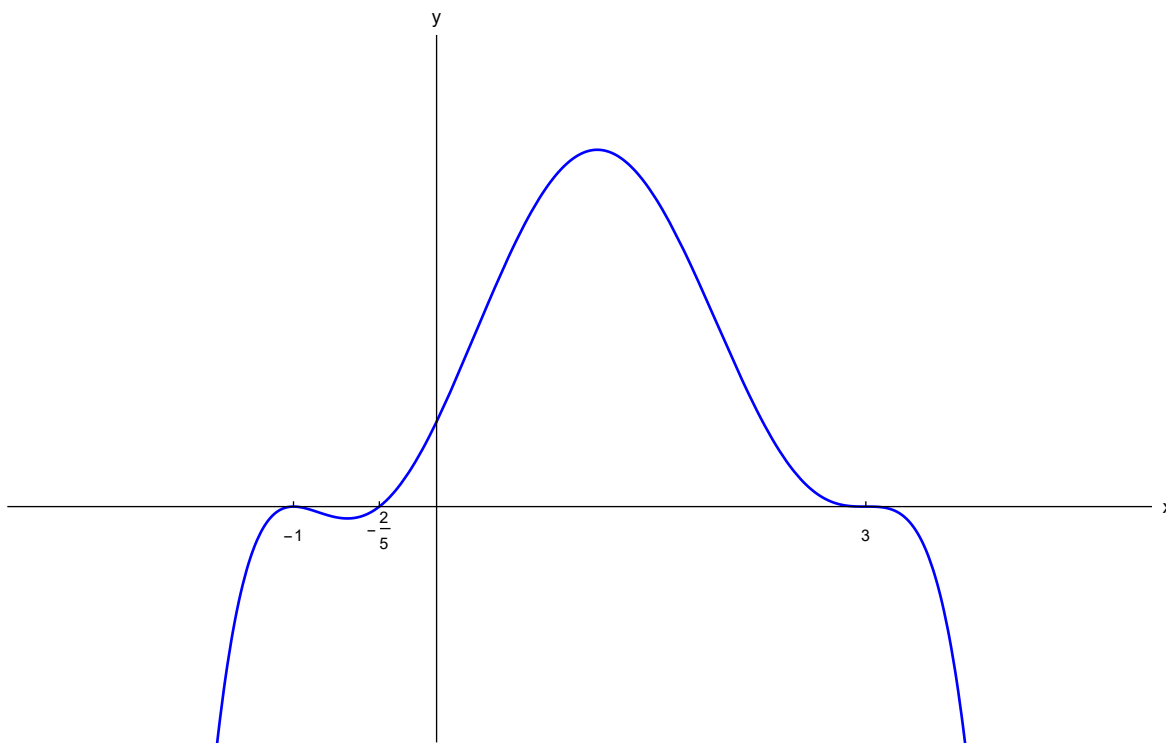


FIGURE 1. Graph of the polynomial $p(x) = -2(x+1)^2(x-3)^3(5x+2)$.