

A-APR Graphing from Factors I

Task

Graph the functions given by the equations $y = (x - 1)(x + 2)(x - 5)$ and $y = 3(x - 1)(x + 2)(x - 5)$ with a viewing window $-10 \leq x \leq 10$ and $-100 \leq y \leq 100$.

- Describe any similarities you see between the two graphs, and explain how you can see those similarities in the given equations.
- Write an equation for a function whose graph in the xy -plane has x -intercepts at -9, -6, 0, and 4. Graph your equation to verify that it works.



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