Algebra 2 End-Behavior/Degree/Leading Coefficient Exploration Fall 2019

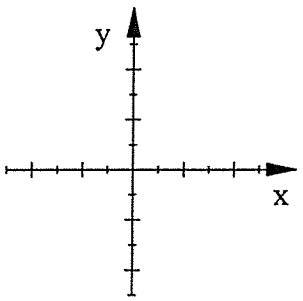
Part 1 Graph each equation in a Standard Window and sketch the graph on the given set of axes.

Part 2 1. Cut the paper so that each equation/graph is a separate piece of paper

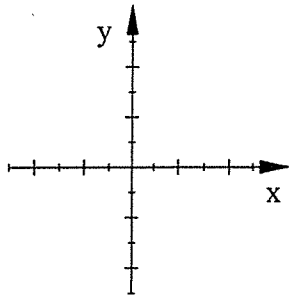
2. Use the graphs and equations to organize the 12 equations/graphs into four groups of three.

Part 3 Summarize the characteristics of each group with respect to "end-behavior" of the graph, degree of the polynomial, and leading coefficient.

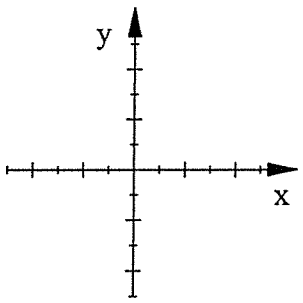
A. $y = 0.5x + 6$



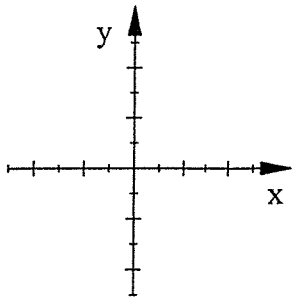
B. $y = -x^4 - x^3 + 2x^2 + 5$



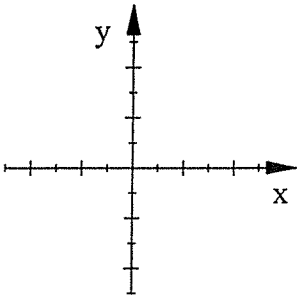
C. $y = 0.5x^4 - 2x^3 + x$



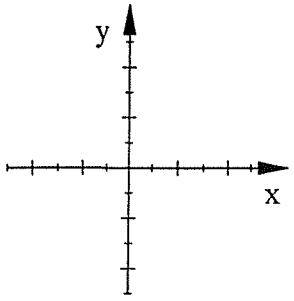
D. $y = -0.1x^5 + x^3 - 2$



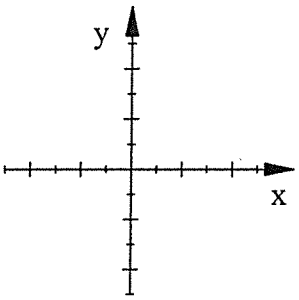
E. $y = 3x + 1$



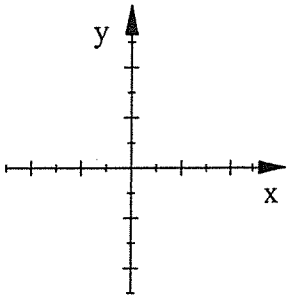
F. $y = -0.1x^6 + 0.2x^5 + x^2 + 3$



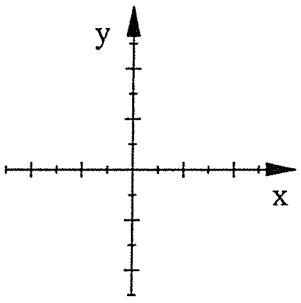
G. $y = 2x^6 - 5x$



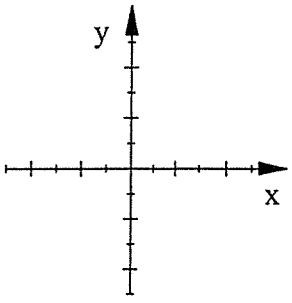
H. $y = 2x^3 - x^2 - 5x$



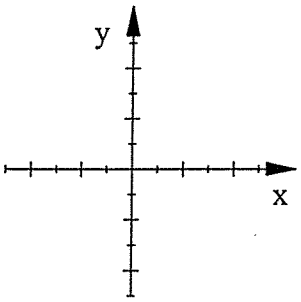
I. $y = -2x^3 - 4x^2 + 5x + 2$



J. $y = 0.1x^5 - x^3 - 0.25x^2$



K. $y = -3x^2 + x + 4$



L. $y = x^2 + 2x - 5$