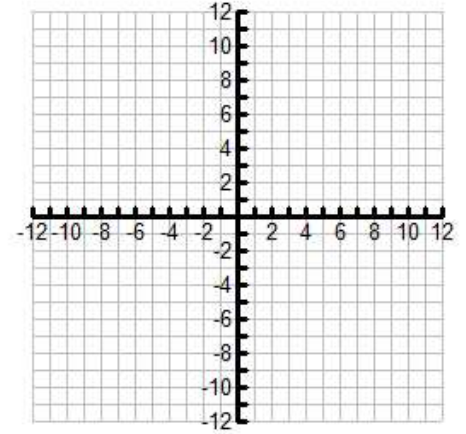
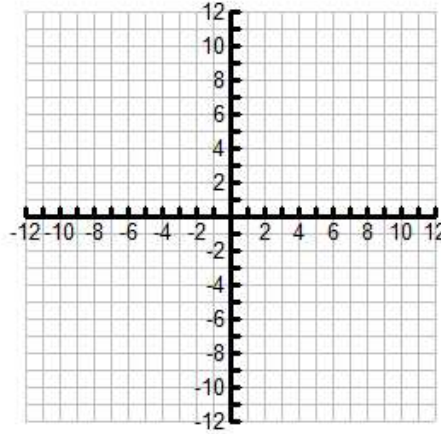
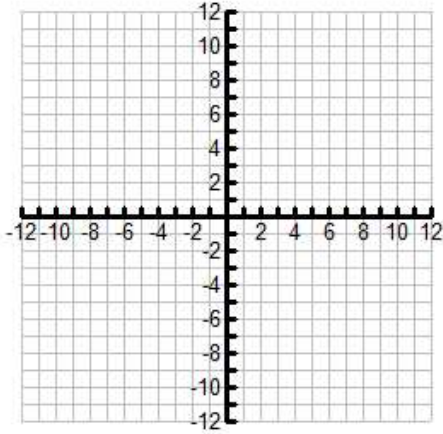


Sketch the graph the following functions. Label the maximum and minimum if it applies.

1. $y = -5$

2. $x = 8$

3. $f(x) = -(x + 3)(x - 4)(x + 1)$

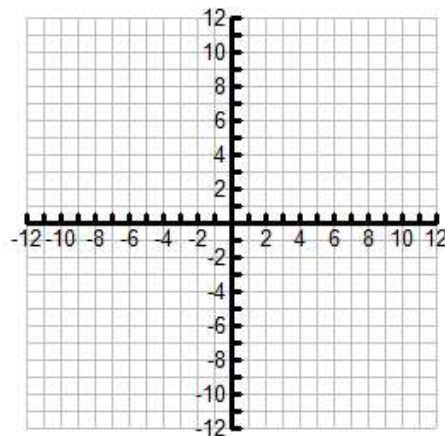
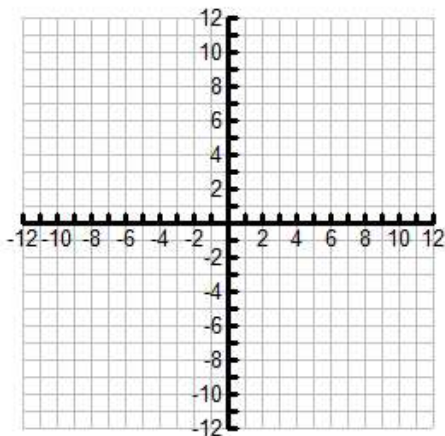


Maximum _____

Minimum _____

4. $f(x) = (x)(x + 2)(x + 6)^2$

5. $f(x) = x^3 + 6x^2 + 11x + 6$



Maximum _____

Minimum _____

Maximum _____

Minimum _____

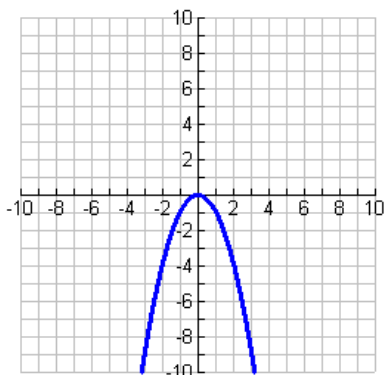
Match the end behavior to the correct graph.

A. $x \rightarrow -\infty$ $x \rightarrow \infty$
 $y \rightarrow \infty$ $y \rightarrow \infty$

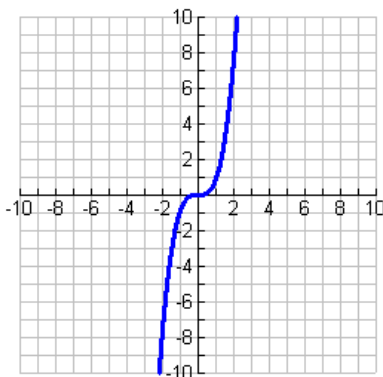
B. $x \rightarrow -\infty$ $x \rightarrow \infty$
 $y \rightarrow -\infty$ $y \rightarrow \infty$

C. $x \rightarrow -\infty$ $x \rightarrow \infty$
 $y \rightarrow \infty$ $y \rightarrow -\infty$

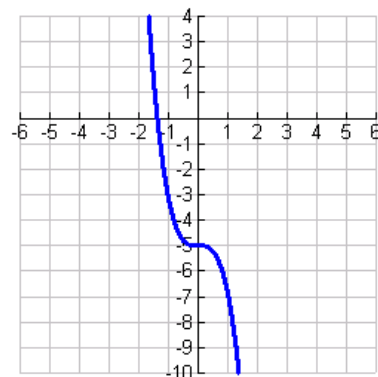
D. $x \rightarrow -\infty$ $x \rightarrow \infty$
 $y \rightarrow -\infty$ $y \rightarrow -\infty$



6. _____



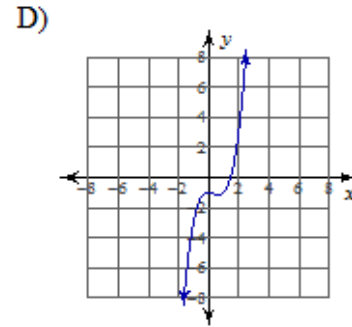
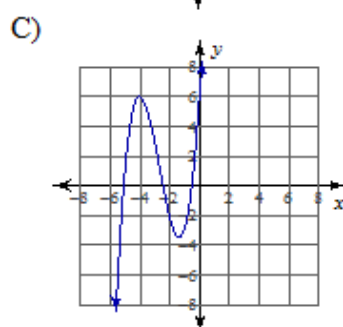
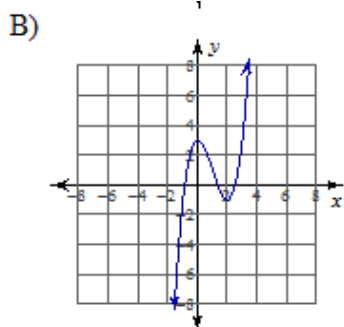
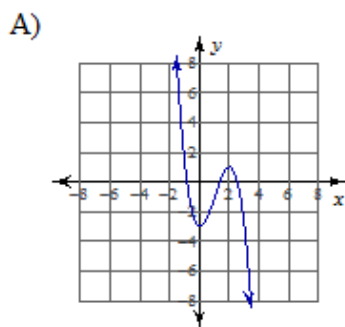
7. _____



8. _____

Match the graph to the correct equation.

$$f(x) = x^3 + 8x^2 + 16x + 6$$



Write the least degree polynomial.

10. $-1, 3, 5$

11. $3i, 2$

12. $\sqrt{3}, 7$