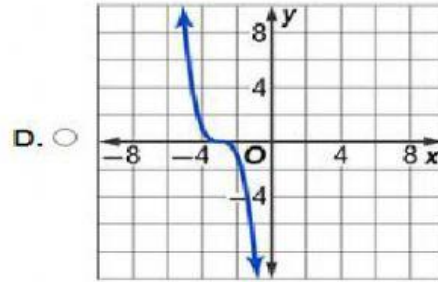
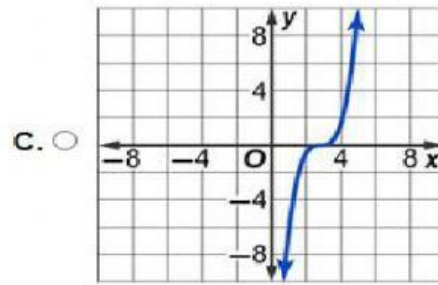
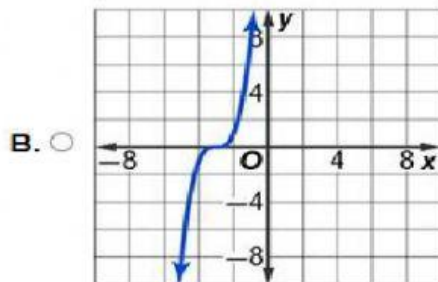
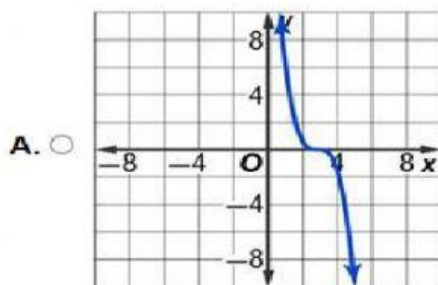


1. Use a graphing calculator to write a polynomial function to model the set of data.

x	-2	-1	0	1	2	3
$f(x)$	-0.5	0.6	1	2	3.5	4

- A. ☐ $0.9x - 1.3$
 B. ☐ $1.3x - 0.9$
 C. ☐ $0.9x + 1.3$
 D. ☐ $1.3x + 0.9$

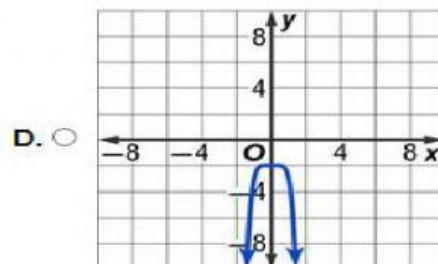
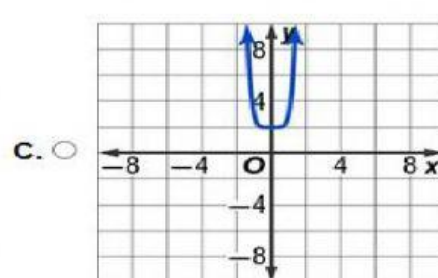
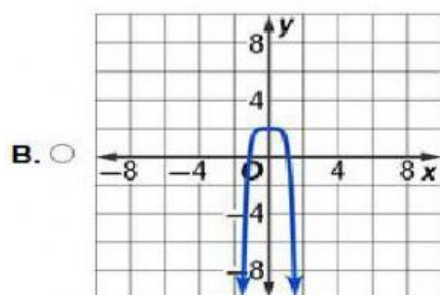
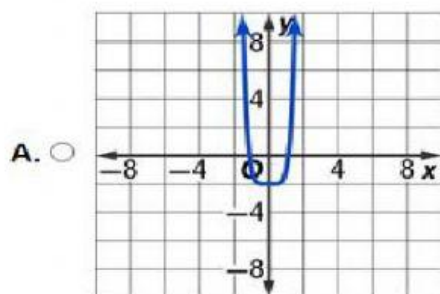
2. Graph $f(x) = (x + 3)^3$



5. Describe the end behavior of $f(x) = -3x^2 + 5x^3 + 2x$ using limits. Explain your reasoning using the leading term test.

- A. ☐ Because the degree is even and the leading coefficient is positive, $\lim_{x \rightarrow -\infty} f(x) = \infty$ and $\lim_{x \rightarrow \infty} f(x) = \infty$.
 B. ☐ Because the degree is odd and the leading coefficient is negative, $\lim_{x \rightarrow -\infty} f(x) = \infty$ and $\lim_{x \rightarrow \infty} f(x) = -\infty$.
 C. ☐ Because the degree is odd and the leading coefficient is positive, $\lim_{x \rightarrow -\infty} f(x) = -\infty$ and $\lim_{x \rightarrow \infty} f(x) = \infty$.
 D. ☐ Because the degree is even and the leading coefficient is negative, $\lim_{x \rightarrow -\infty} f(x) = -\infty$ and $\lim_{x \rightarrow \infty} f(x) = -\infty$.

3. Graph $f(x) = x^6 - 2$.



4. Graph $f(x) = -2(x - 4)^5 + 1$

