Lesson (2-4) Algebra 2

You are asked to sketch the graph of a linear function that is decreasing for all values of x. Which end behavior should your graph show?

A. As $x \to \infty$, $f(x) \to \infty$ and as $x \to -\infty$, $f(x) \to -\infty$.

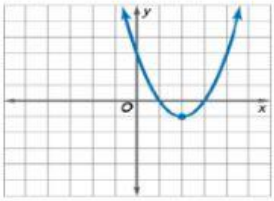
B. As $x \to \infty$, $f(x) \to \infty$ and as $x \to -\infty$, $f(x) \to \infty$.

C. As $x \to \infty$, $f(x) \to -\infty$ and as $x \to -\infty$, $f(x) \to -\infty$

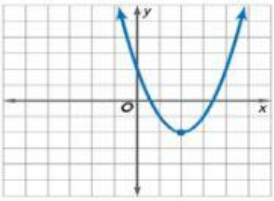
D. As $x \to \infty$, $f(x) \to -\infty$ and as $x \to -\infty$, $f(x) \to \infty$.

Choose the correct nonlinear graph for the given key features. The function is continuous and symmetric about the line $x = 2$. The function has a maximum at $(2, -1)$. As $x \to \infty$, $f(x) \to -\infty$ and as $x \to -\infty$, $f(x) \to -\infty$.

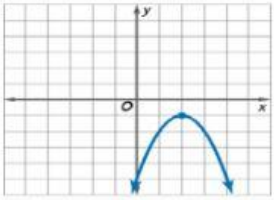
A.



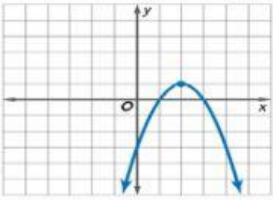
B.



C.



D.



The function $f(x)$ is linear. Based on the table of values, which key feature will the graph of $f(x)$ show?

x	$f(x)$
1	–2
3	0
5	2

A. The function is decreasing.

B. The y-intercept is $(0, -3)$.

C. The function is positive for $x > 0$.

D. The function has a maximum at $(5, 2)$.

LIVEWORKSHEETS