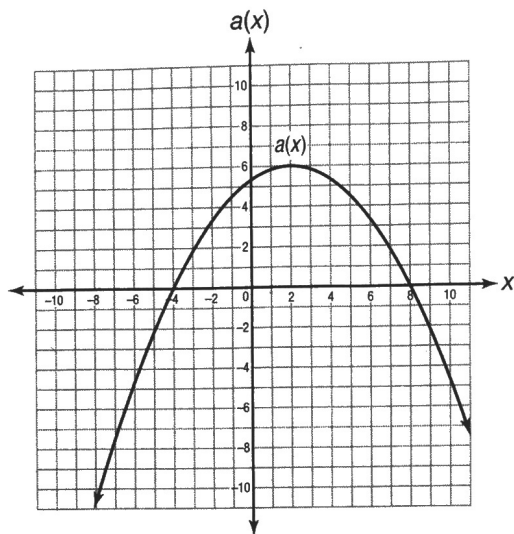


23. The graph below shows the function $a(x)$.



Over which interval is the function increasing and the value of the function positive?

- A. $(-\infty, 2)$
- B. $(-4, 2)$
- C. $(2, 8)$
- D. $(-4, 0)$

24. The function $f(x)$ is defined as $f(x) = -4(x + 2)^2 - 4$. Which of the following statements correctly describes how this function changes over various intervals of its domain?

- A. The function is increasing on the interval $(-\infty, \infty)$ and is negative on the interval $(-\infty, \infty)$.
- B. The function is increasing on the interval $(-\infty, -4)$ and decreasing on the interval $(-4, \infty)$. It is positive on the interval $(-\infty, 2)$ and negative on the interval $(2, \infty)$.
- C. The function is increasing on the interval $(-\infty, 2)$ and decreasing on the interval $(2, \infty)$. It is positive on the interval $(-\infty, -4)$ and negative on the interval $(-4, \infty)$.
- D. The function is increasing on the interval $(-\infty, -2)$ and decreasing on the interval $(-2, \infty)$. It is negative on the interval $(-\infty, \infty)$.

25. Cheryl and Lee are comparing two quadratic functions. The formula of the function $f(x)$ and a table of several input- and output- values of the function $g(x)$ are shown below.

$$f(x) = -6x^2 + 12x + \frac{19}{13}$$

x	$-\frac{b}{2a} - 3$	$-\frac{b}{2a} - 2$	$-\frac{b}{2a} - 1$	$-\frac{b}{2a}$	$-\frac{b}{2a} + 1$	$-\frac{b}{2a} + 2$	$-\frac{b}{2a} + 3$
$g(x)$	17	12	9	8	9	12	17

Which statement best compares the maximum and minimum values of $f(x)$ and $g(x)$?

- A. The minimum value of $f(x)$ is greater than the maximum value of $g(x)$.
- B. The maximum value of $f(x)$ is less than the minimum value of $g(x)$.
- C. The maximum value of $f(x)$ is equal to the minimum value of $g(x)$.
- D. The maximum value of $f(x)$ is greater than the minimum value of $g(x)$.