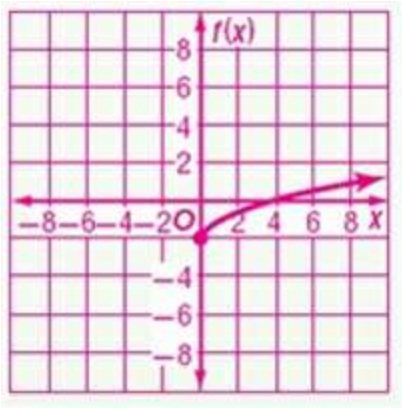
5-3 Square Root Functions and Inequalities

Graph each function. State the domain and range.

4. $f(x) = \sqrt{x} - 2$

ANSWER:

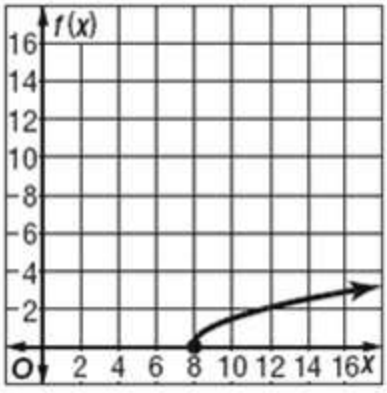
$D = \{x \mid x \geq 0\}; R = \{f(x) \mid f(x) \geq -2\}$



Graph each function. State the domain and range.

21. $f(x) = \sqrt{x - 8}$

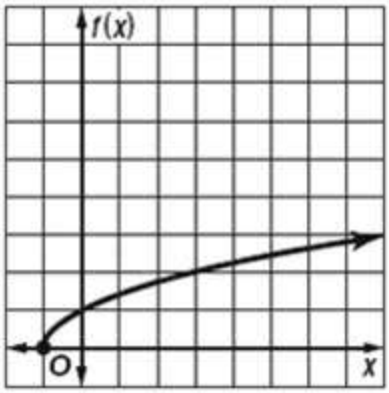
ANSWER:



$D = \{x \mid x \geq 8\}; R = \{f(x) \mid f(x) \geq 0\}$

22. $f(x) = \sqrt{x + 1}$

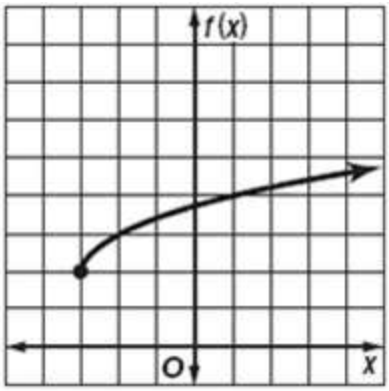
ANSWER:



$D = \{x \mid x \geq -1\}; R = \{f(x) \mid f(x) \geq 0\}$

23. $f(x) = \sqrt{x + 3} + 2$

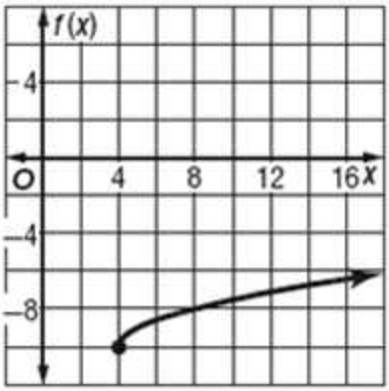
ANSWER:



$D = \{x \mid x \geq -3\}$ $R = \{f(x) \mid f(x) \geq 2\}$

24. $f(x) = \sqrt{x-4} - 10$

ANSWER:



D = $\{x \mid x \geq 4\}$ R = $\{f(x) \mid f(x) \geq -10\}$