

8.2 Graphs of Functions

8.2 Practice

Find the values using the graph.

1. $F(3) = -2$

2. $F(0) = 4$

3. y-intercept = $(0, 4)$

4. Where is $F(x)$ decreasing?

$0 \leq x \leq 3$

6. Where is $F(x)$ negative?

$-7 \leq x \leq -1$ & $2 \leq x \leq 8$

10. If $F(x) = 0$, find x.

$x = 1$ $x = 2$

11. What is the domain of $F(x)$?

$-7 \leq x \leq 8$

5. What is the range of $F(x)$?

$-4 \leq F(x) \leq 4$

7. Where is $F(x)$ increasing?

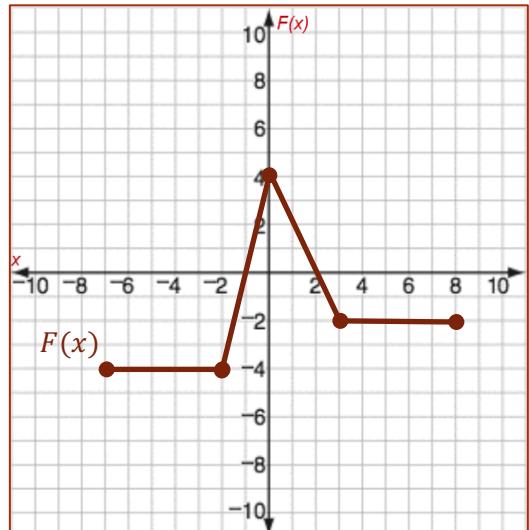
$-2 \leq x \leq 0$

8. Where is $F(x)$ constant?

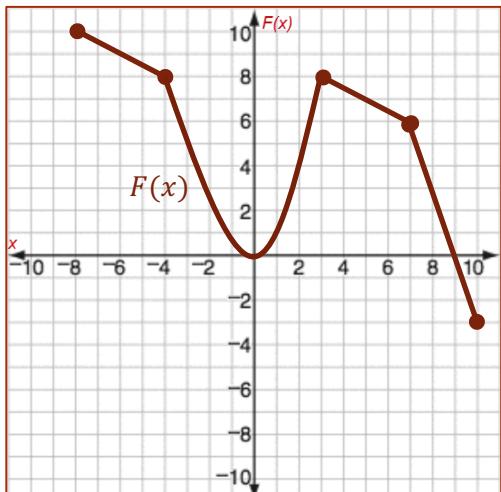
$-7 \leq x \leq -2$ &
 $3 \leq x \leq 8$

9. $F(-4) = -4$

14. $F(-2) = -4$



12. If $F(x) = -3$, find x. $x \approx -1.75$



13. What is the range of $F(x)$?

$-3 \leq F(x) \leq 10$

14. $F(8) = 3$

15. If $F(x) = -4$, find x. DNE

16. Where is $F(x)$ decreasing?

$-8 \leq x \leq 0$
 $3 \leq x \leq 10$

18. x-intercepts =

$(0, 0)$ $(9, 0)$

21. If $F(x) = -3$, find x | What part(s) of the domain are nonlinear?

$x = 10$

17. What is the maximum of $F(x)$?

10

19. If $F(x) = 0$, find x.

$x = 0$
 $x = 9$

20. $F(2) = 4$

22. What is the domain of $F(x)$?
 $-8 \leq x \leq 10$

23. Estimate the rate of change for $-8 \leq x \leq -4$.
 $-\frac{1}{2}$

24. Where is $F(x)$ positive?
 $-8 \leq x \leq 0$ & $0 < x < 9$

25. If $F(x) = 8$, find x.
 $x = -4$ $x = 3$

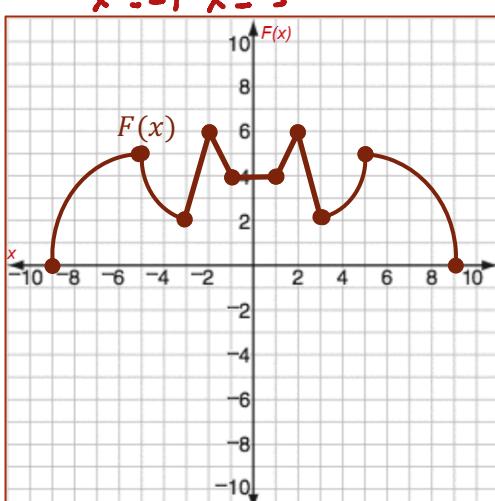
26. Where is $F(x)$ negative?

$-9 \leq x \leq 10$

27. What is the minimum of $F(x)$?

-3

35. $F(7) = 6$



28. What is the range of $F(x)$?

$0 \leq F(x) \leq 6$

30. What is the domain of $F(x)$?

$-9 \leq x \leq 9$

31. Where is $F(x)$ increasing?

$-10 \leq x \leq -5$
 $-3 \leq x \leq -2$

32. x-intercepts =

$(-9, 0)$ $(9, 0)$

33. If $F(x) = 0$, find x.

$x = -9$
 $x = 9$

$1 \leq x \leq 2$

$3 \leq x \leq 5$