

## Exercise Set 2.4: Odd Answers

---

1. No points of discontinuity
3. Discontinuous at  $x = 0$ .  $f(0) \neq \lim_{x \rightarrow 0} f(x)$
5. Discontinuous at  $x = 1$ .  $\lim_{x \rightarrow 1} f(x)$  does not exist.
7. Discontinuous at  $x = -2$  and  $x = 1$ . At  $x = -2$ ,  $f(-2) \neq \lim_{x \rightarrow -2} f(x)$ . At  $x = 1$ ,  $\lim_{x \rightarrow 1} f(x)$  does not exist.
9. Discontinuous at  $x = 2$ .  $\lim_{x \rightarrow 2} f(x)$  does not exist.
11. yes
13. yes
15. no
17.  $(-\infty, 3) \cup (3, \infty)$
19.  $(-\infty, -3) \cup (-3, 3) \cup (3, \infty)$
21.  $(-\infty, -2) \cup (-2, 3) \cup (3, \infty)$
23.  $(-\infty, \infty)$
25.  $(-\infty, 0) \cup (0, \infty)$
27.  $(-\infty, -1) \cup (-1, \infty)$
29.  $(-\infty, 0) \cup (0, \infty)$
31. Discontinuous at  $t = 6, 12, 18$ . Doses of the medication are given every 6 hours.