2.3 Even answers

2) Infinite Discontinuity at $x = 1, 3$

4) No points of Discontinuity

6) No points of Discontinuity

8) Infinite discontinuities for $x = k\pi$ where k is any integer

10) Points of discontinuity at $x \leq -1$

12) a) yes $f(1) = 1$

b) yes $\lim_{x \to 1} f(x) = 2$

c) No

d) No

14) Not continuous at $x = 0, 1, 2$

16) Assign $f(1) = 2$ as a point

20) a) $x = 2$

b) Removable by assigning $f(2) = 1$

22) a) $x = -1$

b) Removable by assigning $f(-1) = 0$

24) a) All points not in the domain and $x = 1, 2$

b) $x = 1$ not removable

$x = 2$ is removable; assign $f(2) = 1$

26) $f(x) = \dfrac{x^2 + x + 1}{x + 1}$

28) $f(x) = \begin{cases} \dfrac{\sin 4x}{x}, & x \neq 0 \\ 4, & x = 0 \end{cases}$