

Continuity

2.4.1

The function has a jump discontinuity at $x = -2$, a removable discontinuity at $x = 1$, and an infinite discontinuity at $x = 4$. It is continuous from the left at $x = -2$ and continuous from the right at $x = 4$.

2.4.2

(a) yes, (b) $k = 1$, $k = -2$.