

Please let me know if you find any typos or errors in the answers below.

Section 3.3

4, horizontal: $y = 1$, vertical: $x = -2, 2$.

6, horizontal: $y = 3, y = 0$, vertical: none.

8, horizontal: $y = 1, y = 0$, vertical: $x = 2, x = -3$.

10, horizontal: $y = -1$, vertical: $x = 2$.

14, horizontal: $y = 5$, vertical: $x = 4, x = -1$.

16, horizontal: $y = 0$, vertical: $t = 2, t = -2$.

Section 3.4:

2, Absolute maximum: $x = 2, f(x) = 21$; Absolute minimum: $x = -3$ or $x = 0, f(x) = 0$.

4, Absolute maximum: $x = 0$ or $x = 5, f(x) = 1$; Absolute minimum: $x = 4, f(x) = -255$.

8, Absolute maximum: $t = -1/2, f(t) = -1/6$; Absolute minimum: $t = -2, f(t) = -4/3$.

12, No absolute maximum; No absolute minimum.

14, No absolute maximum; No absolute minimum.

16, Absolute maximum: $x = 0, f(x) = 1$; No absolute minimum.

Section 3.5:

2, $f(x) = \sqrt{x} - x, x \geq 0$. Absolute maximum: $x = 1/4, f(x) = 1/4$.