

Section 2.8

2. We can estimate each derivative of x by drawing its slope. so they are about $f'(0) = -2, f'(1) = 0, f'(2) = 1, f'(3) = 1, f'(4) = 0, f'(5) = -2$ and the derivative satisfies the function $f'(x) = -\frac{1}{2}x^2 + \frac{5}{2}x - 2$

3. (a) II (b) IV (c) I (d) III .

35. At $x = -4$, it's a corner and discontinuous at $x = 0$

37. At $x = -1$ there is a vertical tangent and it's a corner at $x = 4$

41. $a = f, b = f', c = f''$