

2. [12 points] A continuous (but not necessarily differentiable) function, f , defined for all real numbers has the following properties:
- a. $f'(x) = 1$ for $x < -1$
 - b. f is concave up for $-1 < x < 3$
 - c. $f(2) = 1$
 - d. $f'(2) = 0$
 - e. $\lim_{x \rightarrow +\infty} f(x) = 2$
 - f. $f''(x) > 0$ for $x > 5$

On the axes below, draw a possible sketch of $y = f(x)$ including labels where appropriate.

