1. (a) \( f'(0) \approx \frac{f(1)-f(0)}{1-0} = -8 \)

\( f'(1) \approx \frac{f(2)-f(1)}{2-1} = -6.4 \)

\( f'(2) \approx \frac{f(3)-f(2)}{3-2} = -5.1 \)

\( f'(3) \approx \frac{f(4)-f(3)}{4-3} = -4.1 \)

(b) \( f'(x) \) is decreasing on \([0, 4]\) because all values of \( f'(x) \) are \(< 0\).

(c) Rate of change is increasing since all estimates of \( f' \) are increasing.

2. (a) \( G'(t) \) gives the rate at which the patient's blood glucose level is changing with time.

(b) \( G'(t) \) is in mg/dL per second.