

(1) Let $y = f(x)$ be given by the table:

2 pts

x	2.0	2.2	2.4	2.6
$f(x)$	4.8	4.6	4.2	3.6

Make a table for $f'(x)$

x	2.1	2.3	2.5
$f'(x)$	-1	-2	-3

① ② ③

$$f'(x) \approx \frac{\Delta b}{\Delta x}$$

at ① $\frac{\Delta b}{\Delta x} = \frac{4.6 - 4.8}{2.2 - 2.0} = \frac{-0.2}{0.2} = -1$

at ② $\frac{\Delta b}{\Delta x} = \frac{4.2 - 4.6}{2.4 - 2.2} = \frac{-0.4}{0.2} = -2$

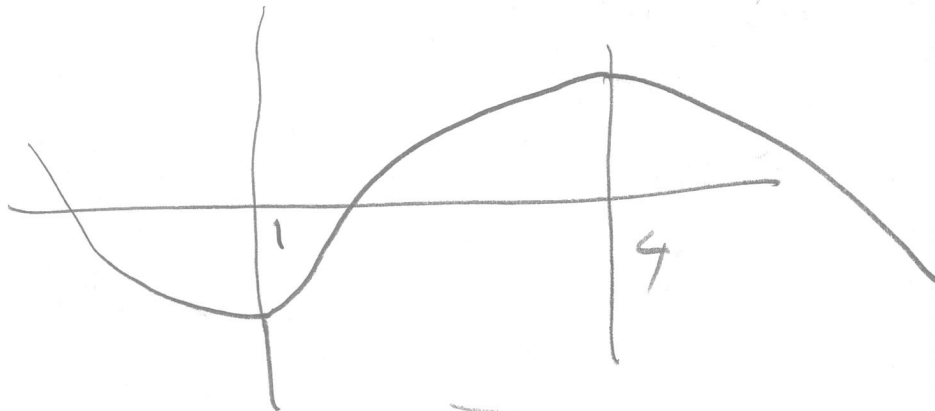
at ③ $\frac{\Delta b}{\Delta x} = \frac{3.6 - 4.2}{2.6 - 2.4} = \frac{-0.6}{0.2} = -3$

(2) Let $y = g(x)$ be a with

3 pts

- $g'(x) > 0$ for $1 < x < 4$ here g is increasing
- $g'(x) < 0$ for $x < 1$ and $4 < x$ here g is decreasing

Draw a possible graph for $y = g(x)$.



$g' < 0$

$g' > 0$

$g' < 0$