①

x	4	4.2	4.4
$f'(x)$	-0.5	-0.3	-0.1
$f(x)$	2	1.94	1.92

$(-0.3 \cdot .2) + 2$

$(-0.1 \cdot 0.2) + 1.94$

② (2,0) $\frac{dy}{dx} = 4x + y$ approx $y(3)$ Euler 2 steps

x	2	2.5	3
$f'(x)$	8	14	
$f(x)$	0	4	11

$f(3) \approx 11$ //

③ $\frac{dy}{dx} = x + y$ $y(1) = 3$

x	1	1.5	2
$f'(x)$	4	6.5	
$f(x)$	3	5	8.25

$y(2) \approx 8.25$

(4) $\frac{dy}{dx} = \frac{1}{x+2}$ $y(0)=1$ approximate $y(1)$ $\Delta x = 0.5$

x	0	.5	1
$f'(x)$	$\frac{1}{2}$	.4	
$f(x)$	1	1.25	1.75

$y(1) \approx 1.75$