

1.2

④ $y = \begin{cases} x, & 0 \leq x \leq 1 \\ -x + 2, & 1 < x \leq 2 \end{cases}$

$(0,0), (1,1)$

$$m = \frac{1-0}{1-0} = 1$$

$$y = 1x + 0$$

$(1,1), (2,0)$

$$m = \frac{0-1}{2-1} = -1$$

$$y - 0 = -1(x-2)$$

$$y = -x + 2$$

1.2

(4b)

$$f(x) = \begin{cases} \frac{1}{2}x & , -2 \leq x \leq 0 \\ -2(x-1) & , 0 < x \leq 1 \\ -1 & , 1 < x \leq 3 \end{cases}$$

$$(-2, -1), (0, 0)$$

$$\frac{0 - (-1)}{0 - (-2)} = \frac{1}{2}$$

$$y - 0 = \frac{1}{2}(x - 0)$$
$$y = \frac{1}{2}x$$

$$y = mx + b$$
$$y = \frac{1}{2}x + 0$$

$$(0, 2), (1, 0)$$

$$\frac{0 - 2}{1 - 0} = -2$$

$$y - 0 = -2(x - 1)$$
$$y = -2(x - 1)$$

(5/e)

$$f(x) = x + 5, g(x) = x^2 - 3$$

$$g(g(-2))$$

$$g(1) = 1^2 - 3 = -2$$

$$g(-2) = (-2)^2 - 3$$

$$g(-2) = 1$$