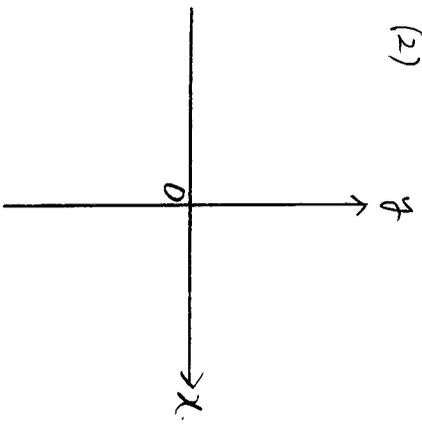


103

$$f(x) = |x^2 + x - 2| + x = |(x+2)(x-1)| + x$$

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

(2) $S =$



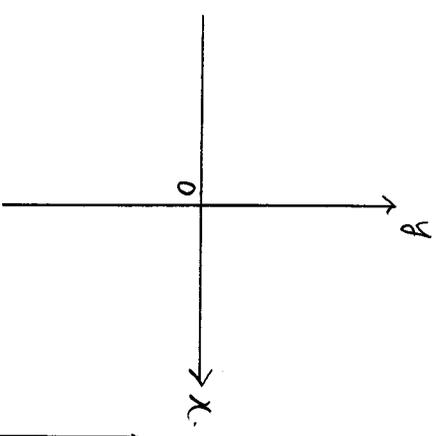
(3) * < t < t < 3。

$$f'(x) = \text{$$

接点 (t,)

傾き $f'(t) = \text{$

接線の式を求めよ。



解

(1) $x^2 + 2x - 2$ (12才) $x \leq -2, 1 \leq x$ (1才) $-x^2 + 2$

(2) 9 (4才) $-2tx + t^2 + 2$

(3) $\frac{4}{3} (\sqrt{2t^2 + 2t + 5})^3 - 9$ (1才) $\frac{-2 \pm \sqrt{4}}{4}$