최소값 = -1

$\therefore \sqrt{2}, -\sqrt{2}$

문제 4.18) 함수 $f(\theta) = (\sqrt{3}\sin\theta + \cos\theta)^2 - (\sqrt{3}\sin\theta + \cos\theta) - 2$ 의 최대값, 최소값

$3\sin^2\theta + 2\sqrt{3}\sin\theta\cos\theta + \cos^2\theta - \sqrt{3}\sin\theta - \cos\theta - 2$

$\sin\theta = x$, $\cos\theta = y$ $= -1, 1$

$3x^2 + 2\sqrt{3}xy + y^2 - \sqrt{3}x - y - 2$

$3x^2 + 2\sqrt{3}xy - \sqrt{3}x + y^2 - y - 2$

$3 + (-2\sqrt{3}) + \sqrt{3} + 1 + 1 - 2 = 1 - \sqrt{3}$ 최대

$3 + 2\sqrt{3} - \sqrt{3} + 1 - 1 - 2$ $1 + \sqrt{3}$ 최소