

(3)

$$y' = 2 \sin x \cos x$$

$2 \sin x \cos x = 0 (0 \leq x \leq 2\pi)$ を解くと

$$x = 0, \frac{\pi}{2}, \pi, \frac{3\pi}{2}, 2\pi$$

増減表を書くと次のようになる.

x	0	...	$\frac{\pi}{2}$	...	π	...	$\frac{3\pi}{2}$	...	2π
y'	0	+	0	-	0	+	0	-	0
y	0	$\nearrow$	1	$\searrow$	0	$\nearrow$	1	$\searrow$	0

増減表より，極大値 $1(x = \frac{\pi}{2}, \frac{3\pi}{2})$

極小値 $0(x = \pi)$

