

WS 2.4: Product + Quotient Rules

① a) $2 \cos t + t^2 \cos t$

b) $-2x^2 \csc^2 x + 4x \cot x$

c)
$$\frac{\sin x \sec^2 x + \sec^2 x - \sin x}{(\sin x + 1)^2}$$

d)
$$\frac{x^3 \sec x \tan x - x^2 \sec x + x \sec x \tan x + \sec x}{(x^2 + 1)^2}$$

e) $f'(x) = -\csc^2 x \cot x - \csc^3 x$

② $y - 1 = 1(x - \pi/4)$

③ $y = -\frac{1}{2}(x - 1)$

⑦ $f'(1) = -2$

⑨ A

⑩ B

⑪ -7 B

⑫ E