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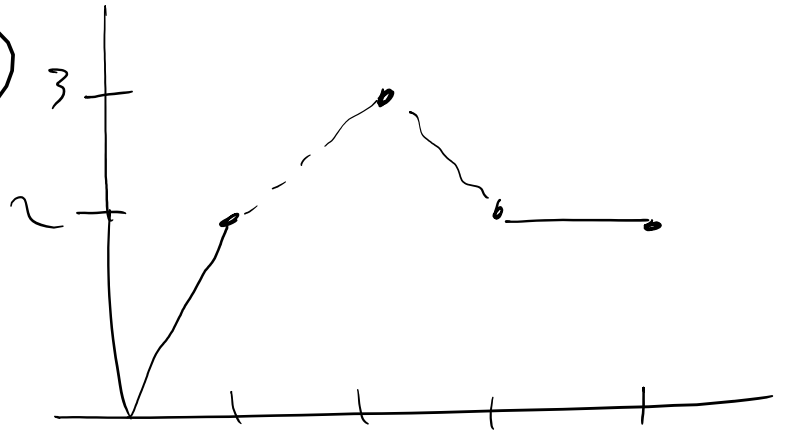
$$f(x) = \sec x$$

$$F(0) = 0$$

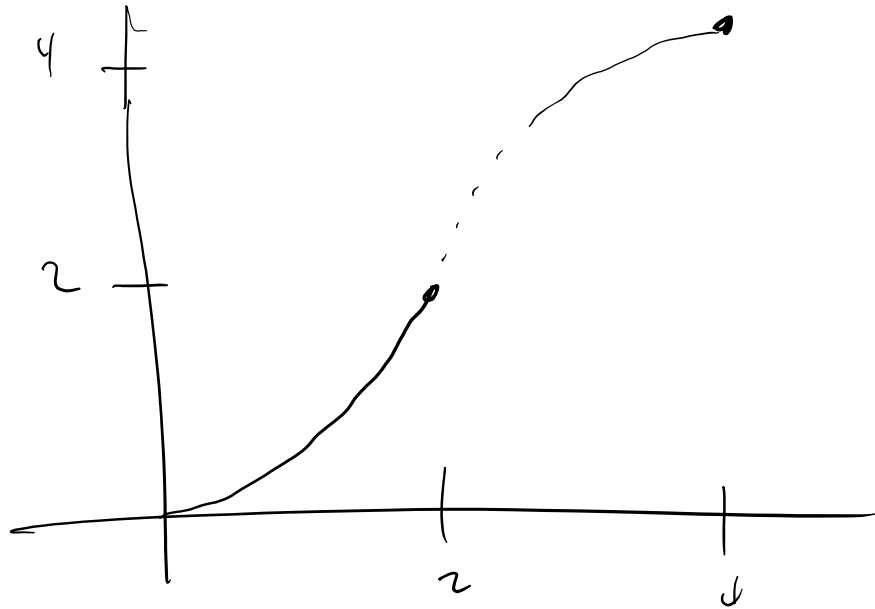
$$\int_0^x \sec t \, dt$$

(L3)

(A)



(B)



$$T(0, 116)$$

$$\left(x, 100 - \frac{x^2}{400}\right)$$

$$\frac{dy}{dx} = -\frac{x}{200}$$

$$-\frac{x}{200} = \frac{116 - \left(100 - \frac{x^2}{400}\right)}{0 - x}$$

$$-\frac{x}{200} = \frac{16 + \frac{x^2}{400}}{-x}$$

$$x^2 = 3200 + \frac{x^2}{2}$$

$$\frac{x^2}{2} = 3200$$

$$x^2 = 6400$$

$$x = 80$$

Slope of secant line = slope of tangent line  
at the point of tangency