

$$y = (x^2 + 2x)(x+1) \quad (1, 6)$$

$$y = x^3 + 3x^2 + 2x \quad (1, 6)$$

$$\frac{dy}{dx} = 3x^2 + 6x + 2 \quad (1, 6)$$

$$m = 3(1)^2 + 6(1) + 2 \\ = 11$$

$$y = 11x + b$$

$$6 = 11(1) + b$$

$$-5 = b$$

$$y = 11x - 5$$

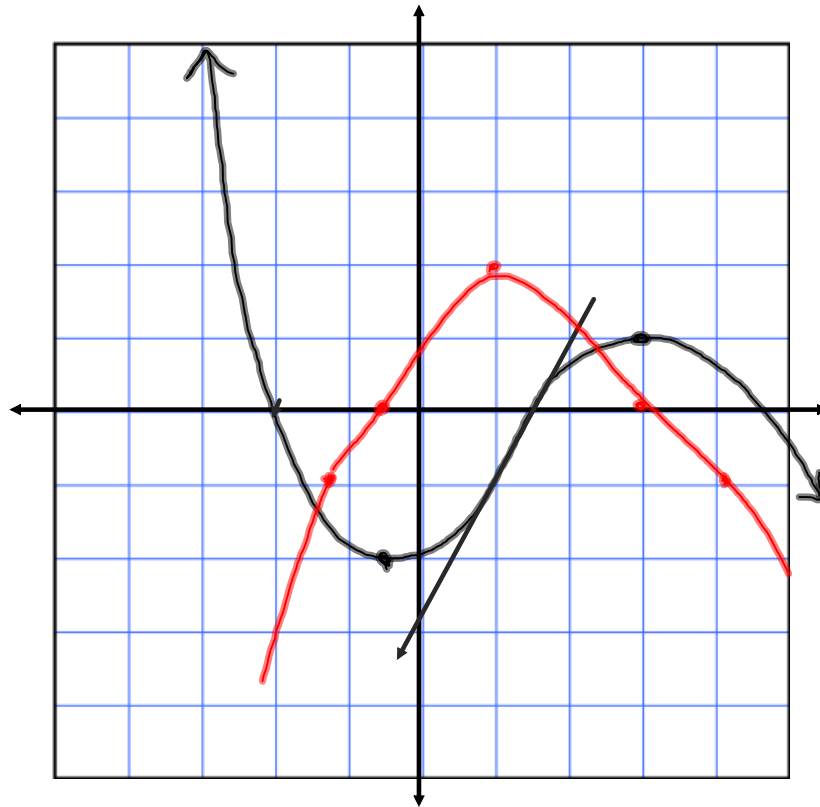
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$$s(t) = \frac{1}{2}at^2 + v_0t + s_0$$

$$s'(t) = v(t)$$

$$s''(t) = v'(t) = a(t)$$

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$$F(x) = \sin^2 x + \cos^2 x = 1$$

$$F'(x) = 0$$

$$F(x) = \underline{\sin x} \cdot \underline{\sin x} + \cos x \cdot \cos x$$

$$\underline{\cos x} \underline{\sin x} + \underline{\cos x} \underline{\sin x} + (-\sin x) \cos x + (-\sin x) \cos x$$

0

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$$58) \quad f(x) = \frac{\sin x}{1 - \cos x} = \frac{-1}{1 - \cos x}$$

$$f'(x) = \frac{\cos x(1 - \cos x) - \sin x(-(-\sin x))}{(1 - \cos x)^2}$$

$$= \frac{\cos x - \cos^2 x - \sin^2 x}{(1 - \cos x)^2} = \frac{\cos x - (\cos^2 x + \sin^2 x)}{(1 - \cos x)^2}$$

$$\frac{\cos x - 1}{(1 - \cos x)^2} = \frac{-1}{1 - \cos x}$$

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