Quiz 23, November 16, 2016

Let $f(x) = \sum_{n=0}^{\infty} \frac{x^n}{n!} = 1 + x + \frac{x^2}{2} + \frac{x^3}{3!} + \frac{x^4}{4!} + \dots$. Find $f'(x)$.

Answer: We compute

$$\boxed{f'(x) = 0 + 1 + x + \frac{x^2}{2} + \frac{x^3}{3!} + \frac{x^4}{4!} + \cdots = f(x).}$$