$$x_{n+1} = \frac{\sin x_n + 2 - x_n^2}{4}$$

$$(1+x)^n \approx 1 + nx + \frac{n(n-1)}{2}x^2$$

$$r = 1.25\%r \Leftrightarrow \delta r = 0.0125r$$

$$x^{10} = 1024 \therefore x = \pm 2$$

$$\lim_{x \to 2} \frac{x^2 - 4}{x - 2} = 4$$

$$\lim_{x \to \infty} e^x = 0$$

$$\lim_{t \to \infty} \frac{100t^{20}}{(\sqrt{e})^t} = 0$$

$$\frac{d}{dx}(\sec x) = \tan x \cdot \sec x$$

$$y = \sin(x^x) \Rightarrow \frac{dy}{dx} = \cos(x^x) \cdot x^x(1 + lnx)$$

$$\int f(t)dt = F(t) + C$$

$$\int_2^3 \frac{1}{x(\ln(x))^2}dx = \frac{1}{\ln(2)} - \frac{1}{\ln(3)}$$

$$\int_0^\pi \cos 3x dx = 0$$

$$\int \frac{1}{\sqrt{a^2 - x^2}}dx = \sin^{-1}\left(\frac{x}{a}\right) + C$$