



Solving Exponential Equations

$$e^{3x} + 4 = 7$$





Solving Exponential Equations

$$\log_4(5x + 2) = 2$$





Solving Exponential Equations

$$5^{2x} - 1 = 8$$





Solving Exponential Equations

$$12 = 2\ln 3x$$





$$\frac{d}{dx} [e^x] = e^x$$


$$f(x) = 3e^x$$



1 2 3 4 5 6


$$\frac{d}{dx} [e^x] = e^x$$

$$f(x) = e^{-4x}$$



1 2 3 4 5 6



$$\frac{d}{dx} [e^x] = e^x$$

$$f(x) = \frac{e^x - e^{-x}}{x^2}$$



1 2 3 4 5 6



$$\frac{d}{dx} [e^x] = e^x$$

$$f(x) = \tan(e^x + 1)$$



1 2 3 4 5 6



$$\frac{d}{dx} [e^x] = e^x$$

Find the equation of the tangent line of the following at (1,0):

$$f(x) = 3e^x \ln x$$




1 2 3 4 5


$$\frac{d}{dx} [e^x] = e^x$$

Find the extrema and points of inflection of:

$$f(x) = e^{2x+2} - x$$



1 2 3 4 5 6



$$\int e^x dx = e^x + c$$

$$\int 4e^x dx$$



1

2

3

4



$$\int e^x dx = e^x + c$$

$$\int_1^3 2xe^{5x^2-1} dx$$



1

2

3

4


$$\int e^x dx = e^x + c$$

Find the average value of the function on [2,4]

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



1

2

3

4


$$\int e^x dx = e^x + c$$

Solve the differential given the initial condition (1,5)

$$\frac{dy}{dx} = e^{\ln(x-1)}$$



1

2

3

4

**Homework: p. 356# 1, 5, 13, 33, 37-43 odd, 47, 49, 55, 57,
65, 71, 85-97 odd, 101, 107, 109, 113**