

Solve the following differential equations:

a)

$$(1+x)y \, dx + (1+y)x \, dy = 0$$

b)

$$\frac{dy}{dx} = e^{x-y} + x^3 e^{-y}$$

c)

$$x \frac{dy}{dx} + y = 2$$

d)

$$\tan x, dy + \tan y, dx = 0$$

e)

$$\frac{dy}{dx} + 4x = 2e^{2x}$$
