

## **S4 GROUPE n**

ETU003235: ANDERSON Soamiavaka Vanille  
ETU003247: ANDRIANAJA Onja Fanilo  
ETU003286: RABETOKOTANY Yvan Noah  
ETU003298: RAJAONARIVONY Tandrifiniaina Dylan  
ETU003305: RAKOTOARIVONY Loïc Dylan  
ETU003331: RANAIVOSON Miora Randie  
ETU003335: RANDRIAMAHEFA Liantsoa Alicia  
ETU003348: RANDRIANIRINA Niriela Andraina  
ETU003363: RATSITO Oelirivo Mitia  
ETU003378: RAZAKANDISA Sariaka Niaina

## Exercice 1:

1.  $y' = \sin(y)$
2.  $x^2 y' = e^y$
3.  $(x^2 + 1)y' + 3xy = x^2$
4.  $y' + y = 2e^x + 4\sin(x)$
5.  $y' - 2y = 2x^3 + x$  ou  $y(3) = 1$
6.  $y' + 2xy = e^{x-x^2}$
7.  $y' \cos(2y) - \sin(y) = 0$

## Exercice 2:

1.  $xy' = y + 3xy^2$
2.  $y' + \frac{y}{x+1} = \frac{1}{2}(x+1)^3 y^3$
3.  $y'(1 - \sin(s) \cos(x)) + y^2 \cos(x) - y' + \sin(x) = 0$   
Si  $y = \cos(x)$  est une solution particuliere
4.  $y = xy' + (y')^3$