

# Równania Różniczkowe i Różnicowe

## Zadania na zajęcia, lab 4

### 1 Lagrange

1.  $y = 3xy' + e^{-\sqrt{y'}}$
2.  $y = \left(y' + \frac{1}{\cos y'}\right)x + \sin^3 y'$
3.  $y = \frac{y' \ln y' - y' + (y')^2}{\ln y' - 1}x + (y')^{1/y'}$
4.  $y = (y')^2 x + \frac{1}{y'}$
5.  $y = x(y' - \operatorname{tg}(y')) + y'$
6.  $y = (y')^2(e^{y'} - x)$
7.  $y = \frac{2(y')^2 - 1}{2y'}x + (y')^{-2}e^{(y')^2}$

### 2 Clairaut

1.  $y = xy' + \frac{1}{2y'}$
2.  $y = xy' - (y')^3$
3.  $y = xy' - \sin y'$