

Domáca úloha 2 - 4mef1 (štvrtok)
Nájdite integrály systémov ODR

1.

$$\begin{aligned}\dot{x} &= e^{2y}, \\ \dot{y} &= 1.\end{aligned}$$

7.

$$\begin{aligned}\dot{x} &= x + y, \\ \dot{y} &= x - y.\end{aligned}$$

2.

$$\begin{aligned}\dot{x} &= \sin y, \\ \dot{y} &= \cos x.\end{aligned}$$

8.

$$\begin{aligned}\dot{x} &= 3, \\ \dot{y} &= 2e^x - y.\end{aligned}$$

Návod: Čomu sa rovná derivácia $e^{\alpha x}y$ podľa času, ak α je konštanta?

3.

$$\begin{aligned}\dot{x} &= x, \\ \dot{y} &= 1.\end{aligned}$$

4.

$$\begin{aligned}\dot{x} &= x^2, \\ \dot{y} &= \sqrt{y}.\end{aligned}$$

5.

$$\begin{aligned}\dot{x} &= 2x + y^3, \\ \dot{y} &= -2y.\end{aligned}$$

6.

$$\begin{aligned}\dot{x} &= y^2, \\ \dot{y} &= x^2\sqrt{1+y^3}.\end{aligned}$$