A. Řešte rovnice:

1. $y' = |y|$

2. $y' = 1 - y^2$

3. $y' = (3/2)\sqrt[3]{y}$

4. $y' = \sqrt{1 - y^2}$

5. $(x^2 - 4x)y' + y = 0$

6. $y' = 3x^2 y^2$

7. $y' = \frac{\cos^2 y}{x^2 + 1}$

8. $y' \sin x = y \ln y$

9. $y' = \sqrt[3]{y^2}$

10. $y' = \exp(-(x + y))$

11. $\frac{yy'}{y^2 - 1} + \frac{x}{x^2 - 1} = 0$

12. $y' = 3\sqrt[3]{y^2} \exp x$

B. Řešte rovnice:

1. $(x^2 + y^2)y' = 2xy$

2. $y^2 + x^2 y' = xyy'$

3. $xy' + y = 2y^2/x$

4. $(x^2 - y^2)y' = 2xy$

5. $y' = \frac{y - x}{y + x}$

C. Řešte rovnice:

1. $y' + y = \sin x \exp(-x)$

2. $x^3 y' - xy = 1$

3. $xy' + (1 + x)y = \exp x$

4. $y' - y/x = x^2 \exp x$

5. $y' + \alpha y = \exp \beta x$

6. $y' + \frac{x}{1 + x^2}y = \frac{1}{x(x^2 + 1)}$

D. Řešte rovnice:

1. $xy' - 4y = x^2 \sqrt{y}$

2. $y' - \frac{xy}{2(x^2 - 1)} - \frac{x}{2y} = 0$

3. $xy' + y = xy^2 \ln x$

4. $x - y^2 + 2xyy' = 0$