Math 026L.01 Spring 2000

Separation of Variables
March 24, 2000

1. Coursepack Page 151.

2. Solve $\dfrac{dy}{dx} = -\dfrac{x^2}{y}$.

3. Solve $\dfrac{dy}{dx} = -\dfrac{x^2}{y^3}$.

4. Solve $\dfrac{dy}{dx} = \dfrac{\sin x}{\ln y}$.

5. Solve $\dfrac{dy}{dx} = e^{x-y}$.

6. Solve $\dfrac{dy}{dx} = e^{x+y}$.

7. Solve $\dfrac{dy}{dx} = (1 + y^2)$.

8. Solve $\dfrac{dy}{dx} = \dfrac{x \sin x}{y \cos y}$.

9. Solve $\dfrac{dy}{dx} = 2x - 2y - 4 + xy$.

10. Calculus Page 509 #33, #34.