Homework 2

Name:

Solve the following equations:

1. \( tx^2(tx' + x) = 1 \)

2. \( tx' + t^2 + tx - x = 0 \)

3. \( (t + 2x^3)x' = x \)

4. \( (x')^3 - x'e^{2t} = 0 \)

5. \( t + xx' = x^2(1 + (x')^2) \)

6. \( tx' = e^x + 2x' \)

7. \( \frac{x-tx'}{t+xx'} = 2 \)

8. \( tx' + x = \ln(x') \)

9. \( (t \cos(x) + \sin(2x))x' = 1 \)

10. \( x' = (4t + x - 3)^2 \)