Assignment Set 2, G63.2470, Spring 2009

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The following assignments are due on February 18 at midnight.

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. $tx' + x = \log(x')$
9. $(t \cos(x) + \sin(2x))x' = 1$
10. $x' = (4t + x - 3)^2$