For each function, find its derivative. Remember that you can verify your answer by graphing.

- 1. $e^x 7x$
- 2. $\ln(x) x^2 + 3x + \ln(2)$
- 3. $e + x^3 7e^x$
- **4.** $x^e \ln(x) + 3^x$
- 5. $\ln(7)e^x 3x^{\ln(12)} + 5e^8 (\ln(3))^x$