Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

1. Solve the exponential equation

$$7 + 15e^{1-3x} = 10.$$

2. Solve the logarithmic equation

$$3 + 2\ln\left(\frac{x}{7} + 3\right) = -7.$$

3. Solve the logarithmic equation

$$2\log\sqrt{x} - \log\left(1 - x\right) = 2.$$