#1) Susan wants to invest her savings at a bank. Her new account has an interest rate of 6.5% compounded continuously. She wants to use the money to buy a car in 36 months. How much should she invest if she wants to reach $7,500 in that time frame?

$$A = Pe^{rt}$$

$\frac{6.5}{100} = 0.065$

$\frac{36}{12} = 3$

$$\frac{7{,}500}{e^{0.065(3)}} = \frac{Pe^{0.065(3)}}{e^{0.065(3)}}$$

$\$6{,}171.26 = P$