



4. [2 parts, 1 point each] Solve the following equations for  $x$  exactly. Decimal approximations are worth partial credit.

(a)  $2 \cdot 7^x = 5$

(b)  $5e^{3x+1} = 2^x$

5. [3 parts, 1 point each] You are negotiating your compensation for a 3 year consulting project. Your client is willing to accept two payment plans. Payment Plan *A* consists of a one-time payment of \$200,000 three years from now, when the project is complete. Payment Plan *B* calls for an immediate payment of \$50,000, a payment of \$60,000 halfway through the project, and a final payment of \$70,000 when the project is complete. Assume that invested funds earn interest at a rate of 4%, compounded annually.

(a) Find the future value of both plans in 3 years.

(b) Find the present value of both plans.

(c) Which plan represents the better deal?