The Fidelity VIP Disciplined Small Cap Fund fund has a ten year average annual rate of return of 6.29%. Treat this rate of return as if it were continuous over the ten year period.

1. If you put $20,000 in the fund 8 years ago, how much would you have now?

2. If you want to have $50,000 in the account now, how much should you have put in 8 years ago?
   How would your answer change if the rate of return were 8.29%?

3. Suppose that you now have $20,000 to invest, and you want $115,000 in 8 years.
   What average rate of return would you need the fund to meet?