

Section 3.3 Additional Problems

1. A borrower borrows \$100,000 for 20 years at an effective annual rate of 5%. He will make interest payments each year at the end of each year and deposit an amount at the end of each year in a sinking fund earning 2%.
 - a. What is his total annual outlay (payments to lender and sinking fund).
 - b. How much more does his method of repayment cost each year compared to making 20 level payments at the end of each year for 20 years to the lender?
2. A borrower borrows \$50,000 for 10 years at an effective annual rate of 3%. She computes what her level payment would be, K . She still wants to pay K each year, but only pays the lender the interest owed at the end of each year. She deposits K minus the interest owed into an account earning 6%. After she uses the amount in the sinking fund to pay off the loan at year 10, how much will remain in the account?