Bosworth Petroleum needs $500,000 to take a cash discount of 2/10 net 70.

A banker will loan the money for 60 days at an interest cost of $8,100.

a. What is the effective rate on the bank loan?

b. How much would it cost (in percentage terms) if Bosworth did not take the cash discount, but paid the bill in 70 days instead of 10 days?

c. Should Bosworth borrow the money to take the discount?

d. If the bank requires 20% compensating balance, how much must Bosworth borrow to end up with the $500,000?

e. What would be the effective interest rate in part d if the interest charge for 60 days were $13,000? Should Bosworth borrow with the 20% compensating balance? (There are no funds to count against the compensating balance requirement.)