Engineering Economy
Spring, 2010
Quiz 1

Name_____ID#(last 4 digits)_____

1. How much money could a company borrow now if it promises to repay the loan with 4 equal year-end payments of $5000 if the interest rate is 6%? (Factor notation equation only)

Answer: P = $5000(P/A,6%,4)

2. If $1,000 is borrowed at an interest rate of 6% per year, determine the amount of money owed at the end of 5 years if the interest is simple.

Answer: $1300

3. McDonald's Restaurant has received a bid of $10,000 for maintenance work at the restaurant. What is the equivalent annual cost of the job if the company expects to recover its investment in five years at an interest rate of 6% per year. (Factor notation equation only)

Answer: A = $10,000(A/P, 6%, 5)

4. An Engineer wants to have $50,000 in seven years to purchase a new vehicle. How much must he invest each year if he starts two years from now and he earns 6% per year? Assume the money is available immediately after the last deposit. (Factor Notation equation only)

Answer: A = $50000(A/F, 6%, 6)

5. John Deere expects the cost of a certain tractor part to increase by $5 /yr beginning 4 years from now. If the cost in years 1-3 is $60, the present worth of the cost thru year 10 at an interest rate of 12%/yr is how much? (Factor notation equation only)

Answer: P = 60(P/A,12%,8) + 5(P/G,12%,8) (P/F,12%,2) + 60(P/A,12%,2)

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