**ENGR 301**

**Engineering Management Principles and Economics**

**Tutorial 7: Nominal and Effective Interest Rates**

1. What is the annual effective interest rate equivalent to a nominal rate of 12% a year?
2. Candice, the local loan shark, lends money to struggling students at a rate of 10% interest per week. What is the nominal interest rate for these loans? What is the effective annual interest rate?
3. The Willis credit card company charges a nominal 18% interest on overdue accounts, compounded daily. What is the effective interest rate per year? Assume 365 days per year.
4. The Republic Park Credit Union advertises savings account interest as 6.5% compounded weekly and chequing account interest at 7% compounded monthly. What are the effective interest rates (per year) for the two types of accounts?
5. Sonja has a bank deposit now worth $796.25. A year ago, it was worth $750. What was the nominal monthly interest rate on her account?
6. Sketch the cash flow diagram associated with the following equivalency expression:

P = $200(P/F,i%,1) + [$100 + $20(A/G,i%,4)](P/A,i%,4)(P/F,i%,2)