



6. What is the effective rate on a discount loan that has an annual discount rate of 12% and the loan is to be paid off in 8 months?

## Section F.2: Compound Interest

- interest is earned on the principal and on the interest
  - $A = P \left(1 + \frac{r}{m}\right)^{mt}$
  - Effective interest rate
    - $r_{eff} = 100 \left(1 + \frac{r}{m}\right)^m - 100$
    - calculator command: Eff(r,m)
  - present value
  - compound interest problems may be solved using the TVM Solver on the calculator.
7. One bank, A, advertises a nominal rate of 7.15% per year compounded semi-annually. a second bank, B, advertises a nominal rate of 7% per year compounded daily. What are the effective yields for each bank? Which bank has the best interest rate?
  8. \$3000 is invested at a rate of 8% per year compounded quarterly. What is the balance in the account at the end of six years?
  9. Bob deposits \$5000 into an account that pays 5.96% per year, compounded monthly. How much money will Bob have at the end of 4 months? How much interest did Bob earn?

