

Quiz 2
Engineering Economy
Spring, 2010

Name: ANSWERS _____

ID#(last 4 digits): _____

1. Determine the effective interest rate per year of an interest rate of 1% per month?
(Equation only)

Answer: effective i/yr = $(1 + 0.12/12)^{12} - 1$

2. For an interest rate of 1.0% per month, determine the nominal rate for 6 months.

Answer: The nominal rate per 6 months, r , is $(1)(6) = 6\%/6$ months

3. A person deposits \$75 per month into a savings account for 2 years. If \$100 is withdrawn in months 5, 7 and 8 (in addition to the deposits), how much will be in the account after 2 years at $i = 6\%$ per year, comp'd quarterly. (Factor notation).

Answer: $F = 225(F/A, 1.5\%, 8) - 100(F/P, 1.5\%, 7) - 200(F/P, 1.5\%, 6)$

4. What is the capital cost of \$5,000 per yr forever at $i=10\%$?

Answer: \$50,000

5. Write the general equation for rate of return.

Answer: $0 = -P \pm A(P/A, i, n) \pm F(P/F, i, n)$