

Name: _____

Fundamentals of Engineering Economy Excel Lab

Each member of the team should write the answer to the following questions on this sheet. When you have completed all exercises, print out your spreadsheet and turn it in with this sheet.

Exercise 1 – In Excel, create table from Example 1-17, on page 29.

Make extensive use of formulas to create table, and try to do so without referring to formulas indicated in the text. Note the use of absolute addressing (typing '\$' before the column and row designations to fix the reference to a single cell as formulas are copied) – you may also choose to put the '\$' in front of only the row or column designator to fix the column or row reference. It is also possible to use absolute addressing within a function (for example, =sum(\$A\$3:A7) will fix the beginning of the sum at cell A3).

- a) What will be the interest earned if the ROR is only 6%? 4%? 2%?

- b) Assume again an 8% ROR, what is the interest earned if EOY 3 cash flow increases to \$600,000? What is the interest if EOY 4 also increases to \$600,000?

- c) Why is the use of formulas important when doing sensitivity analysis in Excel?

Exercise 2 – Using Excel, create a table, similar to Exercise 1, to help answer the following:

If you were to invest \$2000 today in a CD paying 8% per year, how much would the CD be worth at the end of year four?

- a) How much would the CD be worth at 6%?
- b) How much would it be worth at 9%?

Exercise 3 – Using Excel, create a table, similar to Exercise 1, to help answer the following:

How much would you need to invest today in a CD paying 5% if you needed \$2000 four years from today?

- c) How much would you need to invest if the CD paid 6%?
- d) How much would you need to invest if it paid 4%?