

FINA 1082 –Financial Management
Capital Budgeting/Project Evaluation I
Tutorial Solutions for Lecture 10

Note that detailed answers to tutorial questions will only be provided in tutorials. The following abridged answers are intended as a guide to these detailed answers. This policy is in place to ensure that you attend your tutorial regularly and receive timely feedback from your tutor. If you are unsure of your answers you should check with your tutor, a pit stop tutor or the lecturer.

A. Short Answer Questions

A1.

- a) False. The required rate of return is still needed because the *IRR* has to be compared to it.
- b) True. The internal rate of return is the discount rate that makes the net present value equal to zero.
- c) False. Accepting a zero net present value project will have no effect on the firm's value.

A2. The *IRR* would not change and the *NPV* would increase.

A3. The *IRR* and how the project will be financed.

B. Problems

B1.

- a) *NPV* = \$9,611.68.
- b) Using trial and error the *IRR* to be between 17% and 18%. The actual *IRR* is 17.3%.

B2. Since the projects are independent the firm should accept all positive *NPV* projects.

B3. The firm needs to use the net present value method to evaluate mutually exclusive projects because the internal rate of return can give conflicting decisions when mutually exclusive projects are being compared.

B4.

- a) *NPV* = \$10,000,000.
- b) *IRR* = 21.3%.
- c) The two methods give the same decision.

B5. The completed table and *NPV* are as follows.

Year	Cash Inflows	Cash Outflows	Net Cash Flows	Present Value of Cash Flows
0	20,000 + 12,500 ^a	7,000 + 35,000 ^b	-9,500	-9,500
2	22,050	7,865	14,185	10,726
4	24,310	8,837	15,473	8,847
			NPV	\$10,073

^a Present value of increased net cash flows from improvements.

^b The initial outlay.