

# Capital Budgeting Tools Practice Problems

From the book: Self Test Problem 9.1-9.2. Question and Problems:1-3, 7-14, 26 (Same for both editions)

1. You are the CEO of “Super Cool Awesome Fun Mobile Gaming Corp” and have three new games that you can invest in. The cash flows from those investments are listed below. What are the NPV, IRR, and payback period. The required return is 11% and the desired payback period is 3.75 years. Which projects do you accept?

Year	Angry Sloths	Schrute Farms	Return of the Stapler
0	-250,000	-185,000	-170,000
1	55,000	34,500	160,000
2	80,000	35,000	160,000
3	100,000	45,000	160,000
4	55,000	68,000	160,000
5	55,000	91,000	-520,000

- (a) What is the NPV, IRR, Payback period for each project?
- (b) Make the accept reject decision for each project (assume independence).
- (c) What is the issue with “Return of the Stapler” cash flows? When should you accept this project?
- (d) Assume “Angry Sloths” and “Schrute Farms” are mutually exclusive. What does IRR say to do? NPV? Which project should you accept?

## Answers to Textbook

### 11th Edition

- 1) 3.29 2) 2.52; 4.89; Never 3) 2.53; 3.01  
7) 16.69% 8) 2,584.54; -2,779.06 9) 29,202.07; -4,923.12; 17.67%  
10) 24.07% 11) 7,100; 3,541.02; 889.35; -1,143.51  
12 a) 18.33%; 17.37% b) 5,891.09; 7,467.80 c) 15.19%  
13) Crossover rate: 10.19% 14) 6,434,948.98 ; 32.65%; -74.87%  
26) 15.28%; -2,389.03; -13,000.00; 5,549.43

### 12th Edition

- 1) 3.53 2) 2.28; 4.43; Never 3) 2.43; 3.02  
7) 15.80% 8) \$2,816.58; -\$4,028.70 9) \$10,088.59; -\$15,837.69; 11.72%  
10) 21.77% 11) \$6,900; \$3,189.78; \$417.13; -\$1,714.52  
12) a) 19.71%; 18.76% b) \$6,330.67; \$8,138.59 c) 16.48%  
13) Crossover rate: 8.11% 14) \$5,029,336.73; 26.51%; -78.59%  
26) 15.07%; -\$2,447.70; -\$14,000; \$6,216.44

### Answer to above problems

- 1) NPV: 6,468.51; 6,189.26; 17,796.62  
IRR: 12.04%; 12.11%; 6.77% (65.36%)  
Payback: 3.27; 4.03; NA