

Problem 23-2A

Analysis and
computation of payback
period, accounting rate
of return, and net present
value P1 P2 P3



Most Company has an opportunity to invest in one of two new projects. Project Y requires a \$350,000 investment for new machinery with a four-year life and no salvage value. Project Z requires a \$350,000 investment for new machinery with a three-year life and no salvage value. The two projects yield the following predicted annual results. The company uses straight-line depreciation, and cash flows occur evenly throughout each year.

	Project Y	Project Z
Sales	\$350,000	\$280,000
Expenses		
Direct materials	49,000	35,000
Direct labor	70,000	42,000
Overhead including depreciation	126,000	126,000
Selling and administrative expenses	25,000	25,000
Total expenses	<u>270,000</u>	<u>228,000</u>
Pretax income	80,000	52,000
Income taxes (30%)	<u>24,000</u>	<u>15,600</u>
Net income	<u>\$ 56,000</u>	<u>\$ 36,400</u>

Required

1. Compute each project's annual expected net cash flows. (Round the net cash flows to the nearest dollar.)
2. Determine each project's payback period. (Round the payback period to two decimals.)
3. Compute each project's accounting rate of return. (Round the percentage return to one decimal.)
4. Determine each project's net present value using 8% as the discount rate. For part 4 only, assume that cash flows occur at each year-end. (Round the net present value to the nearest dollar.)

Check For Project Y:

(2) 2.44 years, (3) 32%

(4) \$125,286

Analysis Component

5. Identify the project you would recommend to management and explain your choice.