

Problem 11-2A: Analysis and computation of payback period, accounting rate of return, and net present value L.O. 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%)	24,000	15,600
Net income	<u><u>\$ 56,000</u></u>	<u><u>\$ 36,400</u></u>

Requirement 1:

Compute each project's annual expected net cash flows. **(Omit the "\$" sign in your response.)**

	Project Y	Project Z
Net cash flow	\$ <input type="text"/>	\$ <input type="text"/>

Requirement 2:

Determine each project's payback period. **(Round your answer to 2 decimal places.)**

	Project Y	Project Z
Payback Period	<input type="text"/> years	<input type="text"/> years

Requirement 3:

Compute each project's accounting rate of return. **(Omit the "%" sign, which is provided for you. Round your answer to 1 decimal place.)**

	Project Y	Project Z
Accounting rate of return	<input type="text"/> %	<input type="text"/> %

Requirement 4:

Determine each project's net present value using 8% as the discount rate. Use the [Table B.3](#) for annuity value. For part 4 only, assume that cash flows occur at each year-end. **(Omit the "\$" sign in your response. Round your answer to the nearest dollar amount.)**

	Project Y	Project Z
Net present value	\$ <input type="text"/>	\$ <input type="text"/>
