

## Problem 8-2

**Goal:** Determine % return and payout time

**Given:**

Fixed Capital investment	\$10,000,000	
Working capital	25.0%	of total capital
annual depreciation	10.0%	per year
Annual Profit	\$3,000,000	per year

**Approach:** Calculate total capital investment from Fixed & working capital investments

Total Investment = Fixed + 0.25 \* Total Investment

Use equation (8-1a) to calculate ROI      ROI = Annual net Profit / Total Capital Investment

Use equation (8-2a) to calculate Payback period

PBP = Fixed Capital Investment / (Annual net Profit + depreciation)

annual depreciation is % of fixed capital

## Calculations:

total capital = \$13,333,333 = \$10,000,000 / (1 - 0.25)

**Answer a.)**      ROI = **22.50%** = \$3,000,000 / \$13,333,333

annual depreciation = \$1,000,000 = \$10,000,000 \* 0.10

**Answer b.)**      Payback Period = **2.50** years = \$10,000,000 / (\$3,000,000 + \$1,000,000)

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