

Solution 1.31

During a recession, the price of goods and services goes down because of low demand. A company that makes Ethernet adapters is planning to expand its production facility at a cost of \$1,000,000 one year from now. However, a contractor who needs work has offered to do the job for \$790,000 provided the company will do the expansion now instead of 1 year from now. If the interest rate is 10% per year, how much of a discount is the company receiving?

Solution:

$$\begin{aligned}\text{Equivalent present amount} &= 1,000,000/(1 + 0.10) \\ &= \$909,091\end{aligned}$$

$$\begin{aligned}\text{Discount} &= 790,000 - 909,091 \\ &= \$119,091\end{aligned}$$