Chapter 4

Methods of Depreciation

Under the GAAP system in this course, we will discuss the following methods of depreciation:

- The Straight-Line
- The Units of Production
- The Declining Balance
- The Sum-of-the-years'-Digits

The method used is determined by when the product was placed (not purchased) in service and the type of product. To calculate depreciation, these things have to be known:

- The cost of the asset,
- The method used to depreciate it, and
- It's useful life.

The Straight-Line Method

A company that expects an asset to provide equal benefits in each year of its estimated life should select the straight-line method of depreciation. Under this method, the same amount of depreciation expense is taken every year and can be computed in one of two ways:

- The first way is the easiest. Simply divide the depreciable base by the estimated life:

$$\frac{\text{Depreciable base*}}{\text{Years of estimated life}} = \text{annual depreciation expense}$$

*Original cost - residual value = depreciable base

- The second way is to compute an annual depreciation rate:

$$\frac{1.00}{\text{Years of estimated life}} = \text{annual depreciation rate (\% of depreciable base taken for depreciation)}$$

Annual depreciation rate x depreciable base = annual depreciation expense.

Problem 1: Yoyo Co. acquires a fixed asset for $45,000 and estimates a residual value of $5,000 and an estimated life of 5 years. What is the annual depreciation expense under the straight-line method?

Solution 1: First compute the depreciable base: $45,000 acquisition cost - $5,000 residual value = $40,000 depreciable base.