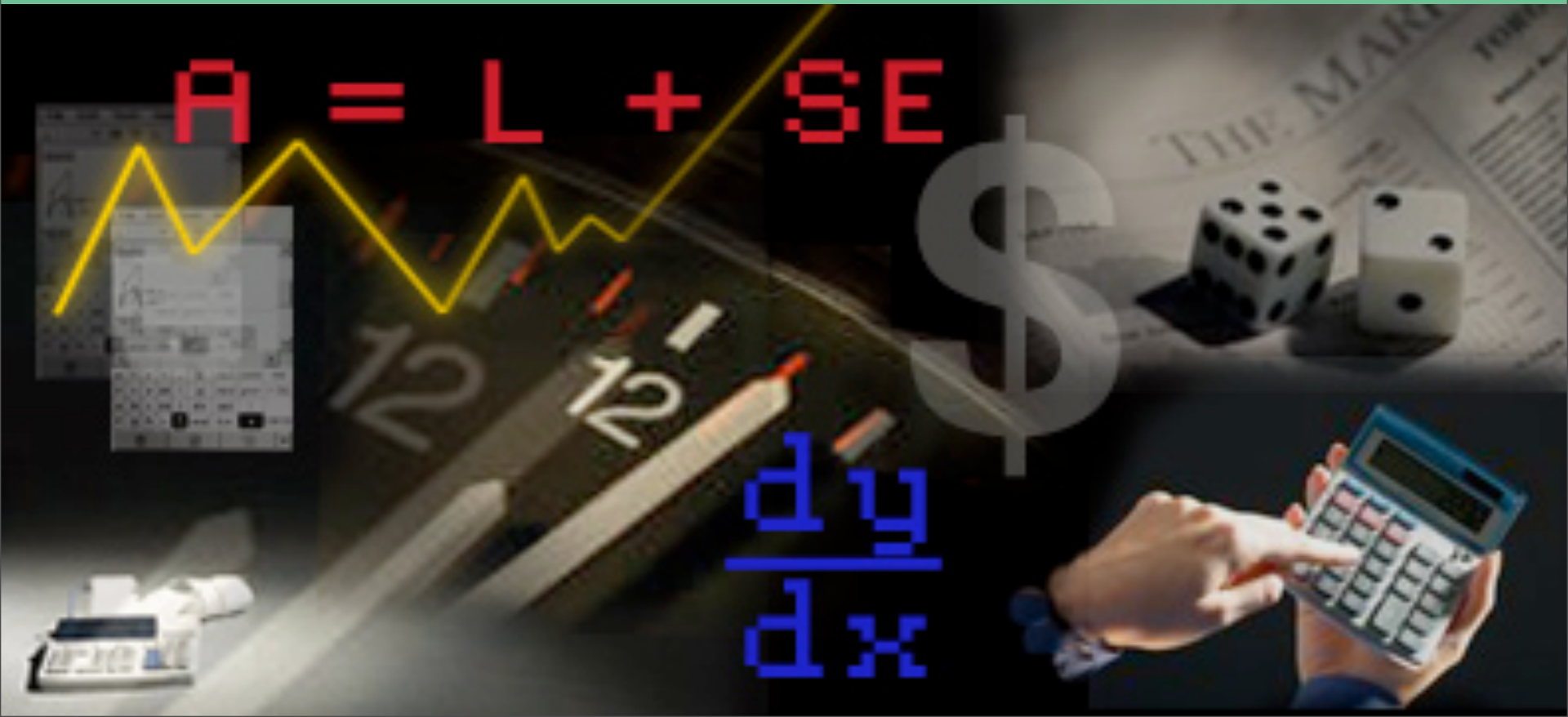


Depreciation Methods

Prof. Guillermo Ortiz

Skyline College



Depreciation Methods

The following four depreciation methods are acceptable for Financial Accounting purposes:

1. Straight-Line
2. Units-of-Production
3. Declining-Balance

Straight-line is the most used method.

Declining-balance is known as accelerated depreciation.

Straight - Line Depreciation

Year	Cost	Depreciation Expense	Accumulated Depreciation	Book Value (end)
1	24,000	4,400	4,400	19,600
2	24,000	4,400	8,800	15,200
3	24,000	4,400	13,200	10,800
4	24,000	4,400	17,600	6,400
5	24,000	4,400	22,000	2,000



$$\frac{\text{Cost } (\$24,000) - \text{Residual Value } (\$2,000)}{\text{Estimated Useful Life (5 years)}} = \text{Annual Depreciation Expense } (\$4,400)$$

Units-of-Production Depreciation

$$\frac{\text{Cost (\$24,000) - Residual Value (\$2,000)}}{\text{Estimated Units of Production (100,000 mi)}} = \text{Depreciation Rate (\$0.22 per mile)}$$

During the first year the truck is operated for 25,000 miles.

$$\text{Depreciation Expense} = 25,000 \times .22 = 5,500$$

Declining - Balance Depreciation

The useful life of the truck is **five years**.

If we were using straight-line depreciation the depreciation rate would be 20% per year.

$$1/5 \text{ years} = .20 \text{ per year}$$

Assuming **Double Declining** accelerated depreciation:

$$\text{Depreciation rate} = 20\% \times 2 = 40\%$$

Declining - Balance Depreciation

Depreciation Rate = 40%
Residual value = \$2,000

	Book Value (begin)	Depr. Expense	Accum. Depr.	Book Value (end)
1	24,000.00	9,600.00	9,600.00	14,400.00
2	14,400.00	5,760.00	15,360.00	8,640.00
3	8,640.00	3,456.00	18,816.00	5,184.00
4	5,184.00	2,073.60	20,889.60	3,110.40
5	3110.40	1,244.16	22,133.76	1,866.24

Declining - Balance Depreciation

Depreciation Rate = 40%
Residual value = \$2,000

	Book Value (begin)	Depr. Expense	Accum. Depr.	Book Value (end)
1	24,000.00	9,600.00	9,600.00	14,400.00
2	14,400.00	5,760.00	15,360.00	8,640.00
3	8,640.00	3,456.00	18,816.00	5,184.00
4	5,184.00	2,073.60	20,889.60	3,110.40
5	3110.40	1,244.16	22,133.76	1,866.24

Note that in the last year we can not apply the 40% depreciation rate because it will result in a book value lower than the residual. The depreciation expense for the last year is the amount necessary to bring accumulated depreciation to \$22,000, so that the ending book value is the residual.

Declining - Balance Depreciation

Depreciation Rate = 40%
Residual value = \$2,000

	Book Value (begin)	Depr. Expense	Accum. Depr.	Book Value (end)
1	24,000.00	9,600.00	9,600.00	14,400.00
2	14,400.00	5,760.00	15,360.00	8,640.00
3	8,640.00	3,456.00	18,816.00	5,184.00
4	5,184.00	2,073.60	20,889.60	3,110.40
5	3110.40	1,110.40	22,000.00	2,000.00

Note that in the last year we can not apply the 40% depreciation rate because it will result in a book value lower than the residual. The depreciation expense for the last year is the amount necessary to bring accumulated depreciation to \$22,000, so that the ending book value is the residual.