

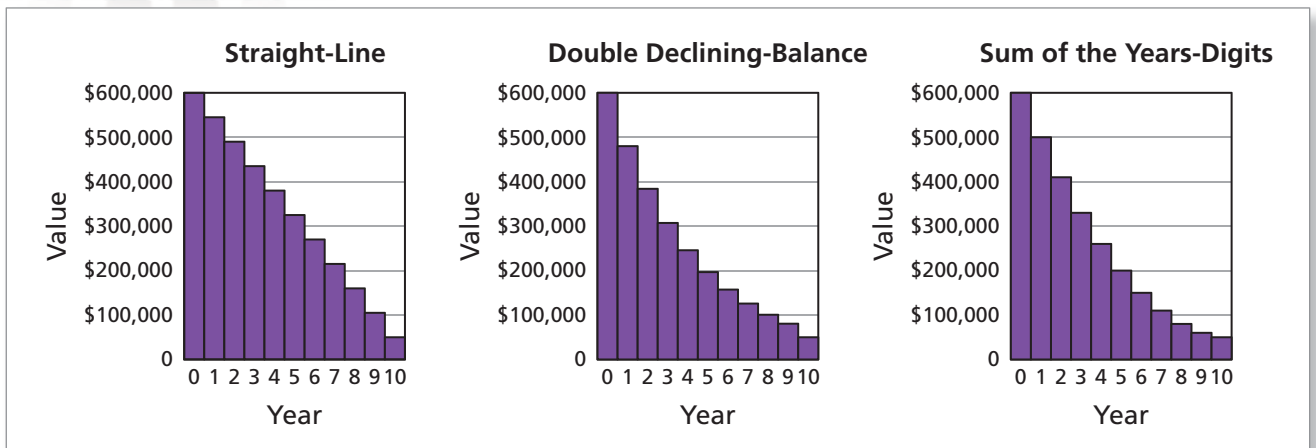


EXAMPLE 6 Comparing Different Types of Depreciation

You own a fitness center and purchase all new equipment for \$600,000. The useful life of the equipment is 10 years, and the salvage value is \$50,000. Graphically compare the three methods of depreciation: (a) straight-line, (b) double declining-balance, and (c) sum of the years-digits.



SOLUTION



- Straight-line depreciation is the simplest method. With this method, you expense the *same amount* of depreciation each year.
- Double declining-balance depreciation is a method of depreciation in which you expense the *same rate* (of the undepreciated value) each year. It is a method of *accelerated depreciation* because the amount of depreciation taken each year is greater during the earlier years of an asset's life. It has the disadvantage that the last year (or last few years) needs to be adjusted to arrive at the salvage value. This is an example of exponential decay.
- Sum of the years-digits depreciation is similar to double declining-balance depreciation. It is an accelerated depreciation, but it has the advantage that it will always arrive at the salvage value exactly (except possibly for round-off error amounting to a few cents).

✓ Checkpoint

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Suppose you own a business. Which method of depreciation do you prefer?