

Subject Area: Principles of Accounts

Level: CSEC

Curriculum Topic: Accounting Adjustments – Straight Line Depreciation

Section 6 Objectives 7 and 8

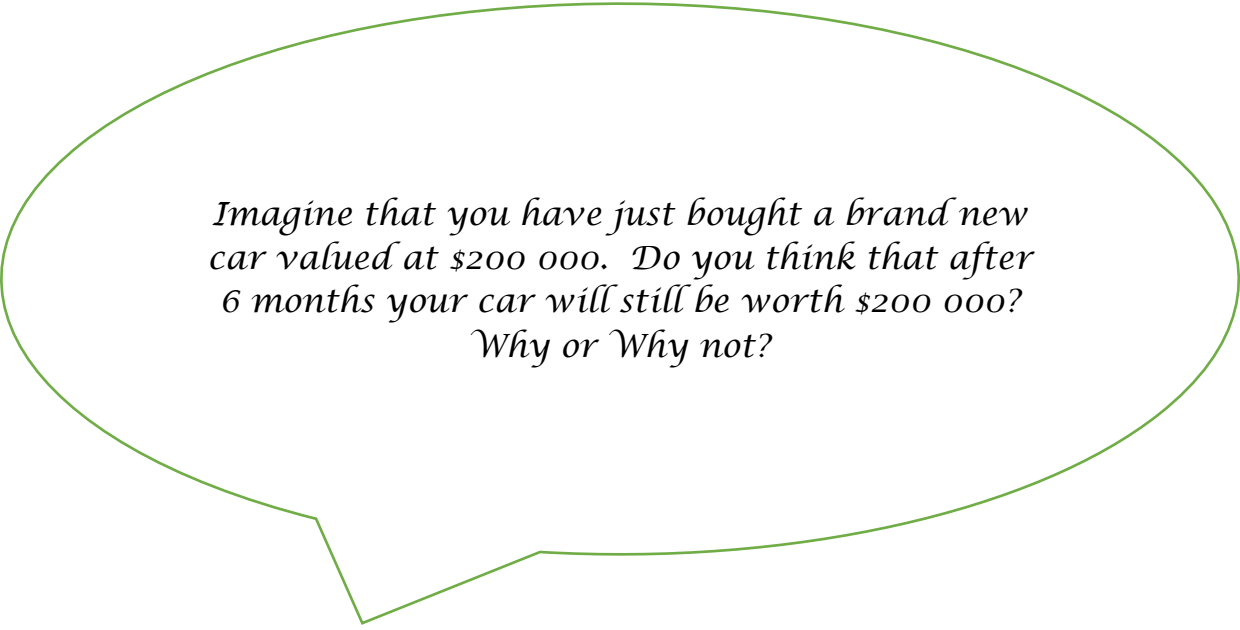
Key teaching points:

1. Discuss the nature of Depreciation
 - (a) Definition
 - (b) Causes
 - (c) Factors to be considered when calculating depreciation – cost, estimated useful life, scrap value
2. Calculate annual depreciation expenses using straight line method (Formula)

Nature of Depreciation

Recall that assets are the items that a business owns which are shown in the Balance Sheet of a business. These assets can last for a long time and are not easily converted into cash – Fixed Assets; or for a shorter time period which are easier to convert into cash – Current Assets.

Some fixed assets though lose their value over time.



Imagine that you have just bought a brand new car valued at \$200 000. Do you think that after 6 months your car will still be worth \$200 000? Why or Why not?

Definition of depreciation

- The reduction in the value of an asset over a period of time.
- It is seen as a cost to a business.
- It reduces the value of an asset over time.

Causes of Depreciation

- Use – the more an asset is used the more it depreciates due to wear and tear.
- Age – as an asset gets older, it may not be as efficient as before
- Obsolescence – with technological advancements, assets become outdated very quickly.

Methods of Calculation

Depreciation can be calculated using different methods which include:

- The Straight Line Method
- The Reducing Balance Method

Straight Line Method

Recall - Depreciation is the reduction in the value of an asset over a period of time.

For the purpose of accurate accounting and valuation of the business, depreciation needs to be calculated.

- Depreciation is a cost/expense to the business
- Depreciation makes the value of the asset fall

The Straight Line Method is the simplest method used for calculating depreciation. This method assumes that depreciation is a constant amount over a period of time.

NOTE

- Cost of an asset is the initial price paid to acquire the asset.
- Scrap Value also called Residual Value or Salvage Value is the cost that would remain after calculating depreciation for the expected life of the asset. In other words, it is the current worth of the asset.
- Expected life or Useful life is the number of years the asset will be used in the business.

Formula: $\frac{\text{Initial cost} - \text{Scrap Value}}{\text{Useful life}} = \text{Depreciation per year}$

Example: Dillon purchased a vehicle for \$32 000. He expects that it will last for 5 years after which it will be worth \$2 000. Calculate his annual depreciation expense.

Firstly identify that:

Cost: \$32 000

Useful life: 5 years

Scrap Value: \$2 000

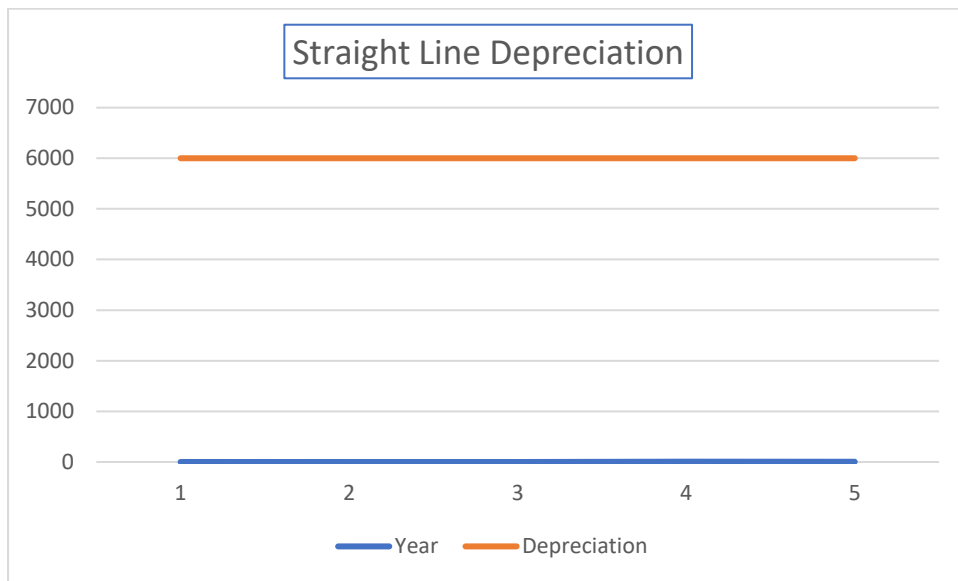
Now using the formula

Depreciation for the year = $\frac{\text{Initial cost} - \text{Scrap Value}}{\text{Useful life}} = \frac{32\,000 - 2\,000}{5} = \$6\,000$ per year

Therefore,

Year	Depreciation
1	\$6 000
2	\$6 000
3	\$6 000
4	\$6 000
5	\$6 000
TOTAL	\$30 000

If the depreciation values are plotted on a graph it will reflect a straight line.



Now test your understanding.

Multiple Choice - Depreciation – Choose the most appropriate answer.

(Suggested time 20 minutes)

1. What is the depreciation expense using the straight line method on an asset costing \$10,000 if it has a useful life of 4 years and a salvage value of \$2,000?
 - a. \$2,500
 - b. \$2,000
 - c. \$5,000
2. If an asset has a useful life of 4 years, what is the annual straight line depreciation rate?
 - a. 25%
 - b. 33.33%
 - c. 20%
3. What is the depreciation expense using the straight line method on an asset costing \$15,000 if it has a useful life of 5 years and a salvage value of \$3,000?
 - a. \$4,000
 - b. \$2,400
 - c. \$3,000
4. If the annual depreciation expense using the straight line method is \$1,500 and the asset cost \$8,000 and had a useful life of 3 years, what is the salvage value of the asset?
 - a. \$3,000
 - b. \$4,000
 - c. \$3,500

5. If an asset has a cost of \$6,000, a salvage value of \$1,500, and the annual straight line method depreciation expense is \$1,125, what is the useful life of the asset?
 - a. 5 years
 - b. 3 years
 - c. 4 years
6. If the straight line method depreciation rate used on an asset is 5%, what is the expected useful life of the asset?
 - a. 20 years
 - b. 5 years
 - c. 10 years
7. Another name for salvage value is?
 - a. Depreciable cost
 - b. Residual value
 - c. Final value
8. Using the straight line method the depreciation expense each year is?
 - a. A fixed amount
 - b. A reducing amount
 - c. A variable amount
9. If an asset has a cost of \$12,000 and a salvage value of \$3,000, what is the depreciable cost using the straight line method?
 - a. \$9,000
 - b. \$12,000
 - c. \$3,000
10. If the depreciable cost of an asset is \$16,000 and it has a useful life of 8 years, what is the annual depreciation expense?
 - a. \$2,500
 - b. \$4,000
 - c. \$2,000

Answers

1	B
2	A
3	B
4	C
5	C
6	A
7	B
8	A
9	A
10	C