FIXED ASSETS

COMMON AMORTIZATION METHODS

STRAIGHT LINE (SL)

Assuming a 12-month accounting period:

$$\text{Amortization} = \frac{HC - SV}{a} \times \frac{n}{12}$$

Where	**HC**	**=**	**Historical cost of the asset**
	SV	**=**	**Estimated salvage value**
	a	**=**	**Years of useful life**
	n	**=**	**Months asset was in use during the present accounting period**

COMMON AMORTIZATION METHODS

UNITS OF OUTPUT METHOD

(This method is also referred to as UNITS OF ACTIVITY, or UNITS OF PRODUCTION)

Amortization for the period =

Amortization per unit of output × Units used in the period

Amortization per unit of output =

$$\frac{\text{Historical Cost} - \text{Estimated Salvage Value}}{\text{Estimated units of output in the life of the asset}}$$

$$\text{So amortization} = \frac{\text{HC} - \text{SV}}{\text{Total Units}} \times \text{Units Used}$$

Note: Calendar time that an asset is in use does not matter when calculating amortization using the units of output method.

COMMON AMORTIZATION METHODS

DECLINING BALANCE

Assuming a 12-month accounting period:

$$\text{Amortization} = BV \times \frac{1}{a} \times \frac{n}{12}$$

Where	**BV**	**=**	**Book Value (i.e., Historical Cost – Accum. Amortization)**
	a	**=**	**Years of useful life**
	n	**=**	**Months asset was in use during the present accounting period.**

Note: Must not amortize past the salvage value.

COMMON AMORTIZATION METHODS

DOUBLE DECLINING BALANCE

Assuming a 12-month accounting period:

$$\text{Amortization} = BV \times \frac{2}{a} \times \frac{n}{12}$$

Where BV = Book Value (i.e., Historical Cost – Accum. Amortization)

a = Years of useful life

n = Months asset was in use during the present accounting period.

Note: Must not amortize past the salvage value.

COMMON AMORTIZATION METHODS

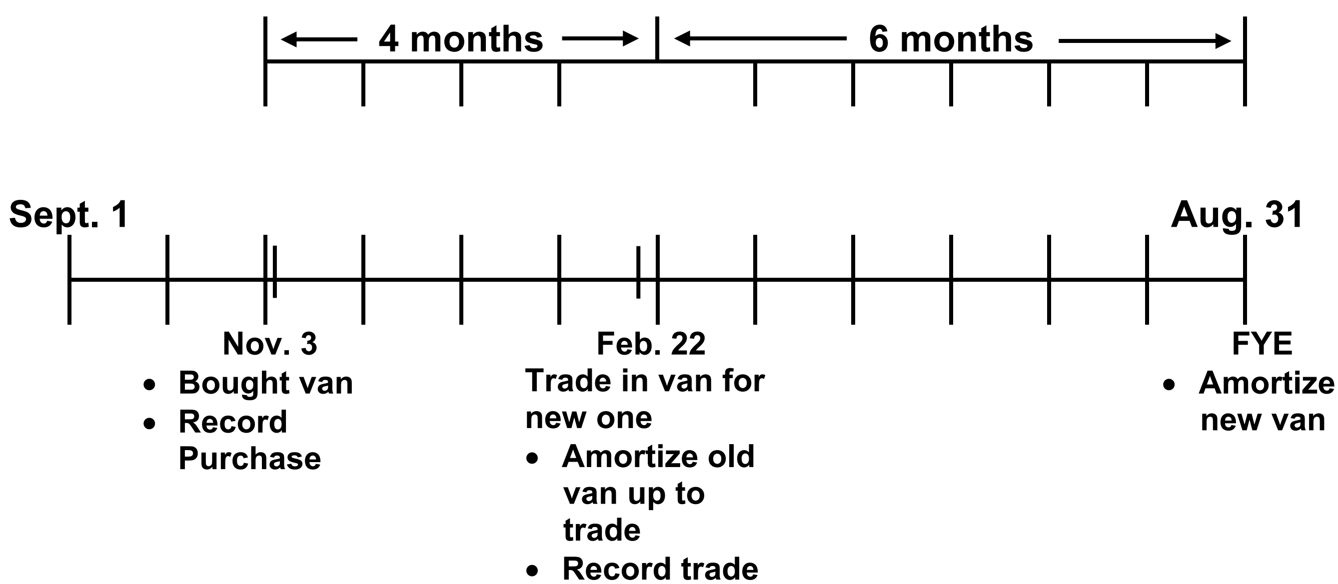
FOR ALL AMORTIZATION METHODS

- **Do not amortize beyond the estimated years of useful life (or past salvage value).**

- **Once the asset has been amortized for its entire useful life, its book value will equal its estimated salvage value.**

TIMELINES

- One of the most common errors in amortization questions is miscounting months.
- Using a timeline can help the user keep track of each amortization asset by providing a visual aid.
- Mark all transactions requiring a new amortization calculation on the timeline.
- Use separate timeline for each asset and for each bond/marketable security (to be discussed late).
- e.g., Van
- Assume Fiscal Year: September 1 to August 31
- Bought van November 3, 1992
- Traded van Feb. 22 for a new van.



ENTRY FOR TRADE-IN/SALE/DISPOSAL

1. Record cash involved.

2. Take old equipment OFF books.
   - Accumulated Amortization
   - Historical Cost

3. Record gain or loss

For Trade-in:

4. Put new equipment on books.

TRADE-INS OF FIXED ASSETS

RECORDING A GAIN ON TRADE

A gain is recorded when the trade-in allowance granted is greater than the book value of the asset.

Example: A $16,000 truck with accumulated amortization totalling $12,800 is traded for a new truck. The trade-in allowance was $4,800 and taken off the list price of $20,000 (thus cash paid = $15,200).

Book Value (Old Asset):

Historical Cost	$ 16,000
Less: Accumulated Amortization	12,800
	$ 3,200

Gain	=	Trade-in Allowance – Book Value
	=	$4,800 – $3,200
	=	$1,600

Accounting Entries (5)

Cash	
(1)	15,200

Truck (old)	
16,000	O/B
(1)	16,000

Acc. Amort. Truck (old)	
O/B	12,800
12,800	(1)

Truck (new)	
20,000	(1)

Gain on Trade (Revenue)	
(1)	1,600

TRADE-INS OF FIXED ASSETS

RECORDING A LOSS ON TRADE

A loss is recorded when the trade-in allowance granted is less than the book value of the asset.

Example: A $16,000 truck with accumulated amortization totalling $12,800 is traded for a new truck. The trade-in allowance was $2,400 and taken off the list price of $20,000 (thus cash paid = $17,600).

Book Value (Old Asset):

Historical Cost	**$ 16,000**
Less: Accumulated Amortization	**12,800**
	$ 3,200

Loss = Book Value – Trade-in Allowance
= $3,200 – $2,400
= $800

Accounting Entries (5)

Cash	
(1)	17,600

Truck (old)	
16,000	O/B
(1)	16,000

Acc. Amort. Truck (old)	
O/B	12,800
12,800	(1)

Truck (new)	
20,000	(1)

Loss on Trade (Expense)	
800	(1)

ACCOUNTING FOR DISPOSALS, SALES AND TRADE-INS

1. **Amortize the asset up to the point of the sale, disposal or trade-in.**

2. **Calculate the asset's book value at the point of the sale, disposal or trade-in.**

3. **Compare the asset's book value with the cash received or the trade-in allowance granted.**

   - **If the BV is greater than the cash received or the trade-in allowance granted, then a LOSS has occurred. Losses are recorded as EXPENSES.**

   - **If the BV is less than the cash received or the trade-in allowance granted, then a GAIN has occurred. Gains are recorded as REVENUE.**

4. **Record the entry**

   - **Remove the old asset from the accounting records.**

   - **Record the effect on Cash.**
     - **In the case of a sale—Debit**
     - **In the case of a trade-in—Credit**
     - **(List Price – Trade-in Allowance)**

   - **Record the Gain/Loss.**

   - **In the case of a trade-in, add the new asset to the accounting records.**