 Name _____

Depreciation Step by Step: Straight-Line Method

Campus Brew Co. (a made-up company) roasts coffee for cafes. Its year ends on **December 31**.

The purchase

- **Jan 1, 2026:** Bought a coffee roaster. List price **$19,000**, less a **$1,000** discount. Also paid sales tax **$1,000**, delivery **$500** and installation **$500**. Everything was paid in **cash**.
- Expected **useful life: 4 years**. Expected **residual value: $2,000** (what it can be sold for after 4 years).
- Campus Brew uses the **straight-line method** and records depreciation in an adjusting entry every **Dec 31**.



1. Acquisition cost

List price	19,000
Less: Discount	(1,000)
Sales tax	1,000
Delivery	500
Installation	500
Acquisition cost	**20,000**

All of these are capitalized: they get the roaster ready to use.

2. Journal entry at purchase

Date	Account	Debit	Credit
Jan 1	**PPE (+A)**	**20,000**	
	Cash (−A)		**20,000**

3. Adjusting journal entry (AJE), Dec 31, 2026

Annual DepExp = (Cost − Residual value) ÷ Useful life = **4,500**

Date	Account	Debit	Credit
Dec 31	**DepExp (+E)**	**4,500**	
	AccDep (+xA)		**4,500**

4. T-account for AccDep

Accumulated Depreciation

	Dec 31, 2026	**4,500**
	Dec 31, 2027	**4,500**
	End. bal. 2027	**9,000**

5. Straight-line schedule

Year	Beg BV	DepExp	AccDep (end)	Ending BV
1	**20,000**	**4,500**	**4,500**	**15,500**
2	**15,500**	**4,500**	**9,000**	**11,000**
3	**11,000**	**4,500**	**13,500**	**6,500**
4	**6,500**	**4,500**	**18,000**	**2,000**
Total		**18,000**		

Beg BV = last year's Ending BV. Ending BV = Cost − AccDep.

The Same Roaster: Double-Declining Balance Method

Suppose Campus Brew used the **double-declining balance method** instead. Cost **$20,000**, residual value **$2,000**, useful life **4 years**, bought Jan 1, 2026.

6. The rate and Year 1

Rate = 2 ÷ Useful life = **50%**

Year 1 DepExp = Rate × (Cost − AccDep) = **10,000**

Year 4 (the last year): DepExp = Beg BV − Residual value = **500**

7. AJE, Dec 31, 2026 (DDM)

Date	Account	Debit	Credit
Dec 31	**DepExp (+E)**	**10,000**	
	AccDep (+xA)		**10,000**

8. Double-declining schedule

Year	Beg BV	DepExp	AccDep (end)	Ending BV
1	**20,000**	**10,000**	**10,000**	**10,000**
2	**10,000**	**5,000**	**15,000**	**5,000**
3	**5,000**	**2,500**	**17,500**	**2,500**
4	**2,500**	**500**	**18,000**	**2,000**
Total		**18,000**		

The last year is not 50% of Beg BV: it brings Ending BV down to the residual value.

9. Compare the two methods

Year	SLM DepExp	DDM DepExp
1	**4,500**	**10,000**
2	**4,500**	**5,000**
3	**4,500**	**2,500**
4	**4,500**	**500**
Total	**18,000**	**18,000**

10. What it means

Higher depreciation expense in 2026: SLM / **DDM**

Higher net income in 2026: **SLM** / DDM

Total depreciation over 4 years: **same** / different

Book value at Dec 31, 2029: **same** / different

Does the Dec 31 entry use cash? yes / **no**