

CONCEPT: DEPRECIATION – UNITS OF PRODUCTION METHOD

● **Depreciation** – breaks up the up-front cost of a long-term asset over its _____

□ When calculating depreciation (in all methods), we must know three things about the asset:

1. **Cost** – The initial cost of the asset

2. **Useful Life** – how long the company _____ the asset to help generate revenue

- For this method, the useful life is in _____

3. **Residual Value** – how much the company _____ the asset to be worth at the end of its useful life

- Residual Value is also called *salvage value* or *scrap value*

$$\text{Depreciation per unit of output} = \frac{\text{Cost} - \text{Residual Value}}{\text{Useful Life, in units of output}}$$

EXAMPLE: On January 1, Year 1, Johnson & Johnson & Johnson Company purchased a delivery truck for \$42,000. The company estimated a useful life of 120,000 miles and a residual value of \$2,000. During Year 1, the truck was driven 36,000 miles. What would be the entry to record depreciation when preparing the December 31, Year 1 financial statements and the net book value on that date?

Cost = \$42,000; Estimated Residual Value = \$2,000; Estimated Useful Life = _____				
Date	Miles Driven During Year	Depreciation Expense	Accumulated Depreciation	Net Book Value
January 1, Year 1				
December 31, Year 1	36,000			
December 31, Year 2	24,000			
December 31, Year 3	30,000			
December 31, Year 4	18,000			
December 31, Year 5	16,000			
December 31, Year 6	8,000			

PRACTICE: ABC Company purchased a new machine on January 1, Year 1 for \$44,000. The company expects the machine to produce 50,000 units. The company thinks it could sell the scrap metal from the machine for \$4,000 at the end of its useful life. If the company uses the units-of-production method for depreciation, what will be the net book value of the machine on December 31, Year 1, if 15,000 units are produced with the machine during the year?

- a) \$12,000
- b) \$13,200
- c) \$30,800
- d) \$32,000

PRACTICE: DBQ Company purchased a machine on January 1, Year 1 for \$60,000. The company estimated a 300,000 unit production useful life and \$8,000 residual value. During Year 1, the company produced 90,000 units. During Year 2, the company produced 30,000 units. If the company uses the units-of-production method for depreciation, what will be the amount of accumulated depreciation on December 31, Year 2?

- a) \$5,200
- b) \$6,000
- c) \$20,800
- d) \$24,000

PRACTICE: XYZ Company purchased a machine on January 1, 2018 for \$110,000. The company estimated a 20,000 unit useful life and \$10,000 residual value. XYZ produced 8,000 units in 2018; 6,000 units in 2019; and 10,000 units in 2020. If the company uses the units-of-production method for depreciation, what will be the amount of depreciation expense for the year 2020?

- a) \$30,000
- b) \$40,000
- c) \$50,000
- d) None of the above