

Quick Questions On Revising Depreciation, Ordinary Repairs, And Betterments

The LMN Company had the following independent transaction related to a four-year-old machine costing \$46,000. The machine originally had a useful life of eight years and residual value of \$6,000. Assuming the straight-line depreciation, answer the following:

- A. The machine has been wearing very well and is expected to last an additional two years and has \$2,000 of additional residual value. Depreciation per year would be:

$$\text{Current Age} = 4 \text{ years} \quad D = \frac{C - RV}{n} = \frac{\$46,000 - \$6,000}{8} = \frac{\$40,000}{8} = \$5,000$$

$$\text{Cost} = \$46,000$$

$$n = 8 \text{ years}$$

$$RV = \$6,000$$

$$\text{A.D. after four years is } (4) (\$5,000) = \$20,000$$

$$RV' = \$8,000$$

$$\text{Book Value} = C - AD = \$46,000 - \$20,000 = \$26,000$$

$$n' 4 + 2 = 6$$

$$\text{New depreciation per year} = \frac{BV - RV'}{n'} = \frac{\$26,000 - \$8,000}{6} = \$3,000$$

- B. The Company made a capital investment in the machine of \$10,000 which will add four years to its useful life. Make the entry to record the investment and calculate next year's depreciation.

DATE	ACCOUNT TITLE AND DESCRIPTION	PR	DEBIT	CREDIT
B	Accumulated Depreciation		10,000	
	Cash			10,000

$$\text{Current Age} = 4 \text{ years}$$

$$AD = (4) (\$5,000) = \$20,000$$

$$\text{Cost} = \$46,000$$

$$n = 4 + 4 = 8 \text{ years}$$

$$RV = \$6,000$$

$$\text{A.D.'} = \$20,000 - \$10,000$$

$$= \$10,000$$

$$\text{Book Value} = \text{Cost} - \text{Accumulated Depreciation}$$

$$\$46,000 - \$10,000 = \$36,000$$

$$D' = \frac{BV - RV}{n}$$

$$D' = \frac{\$36,000 - \$6,000}{8} = \$3,750$$

- C. Assume that question B had not extended the useful life but had made the machine more efficient. Make the entry to record the investment and calculate next year's depreciation.

DATE	ACCOUNT TITLE AND DESCRIPTION	PR	DEBIT	CREDIT
C	Machine		10,000	
	Cash			10,000

$$\text{Cost} = \$46,000 + \$10,000 = \$56,000$$

$$\text{Accumulated Depreciation} = \$20,000$$

$$\text{Book Value} = C - AD = \$56,000 - \$20,000 = \$36,000$$

$$RV = \$6,000$$

$$D' = \frac{BV - RV}{n}$$

$$= \frac{\$36,000 - \$6,000}{4}$$

$$= \$7,500$$