

**Part 1.** A machine costing \$210,000 with a four-year life and an estimated \$20,000 salvage value is installed in Calhoun Company's factory on January 1. The factory manager estimates the machine will produce 475,000 units of product during its life. It actually produces the following units: year 1, 121,400; year 2, 122,400; year 3, 119,600; and year 4, 118,200. The total number of units produced by the end of year 4 exceeds the original estimate—this difference was not predicted. (The machine must not be depreciated below its estimated salvage value.)

**Required**

Prepare a table with the following column headings and compute depreciation for each year (and total depreciation of all years combined) for the machine under each depreciation method.

Year	Straight-Line	Units-of-Production	Double-Declining-Balance

**Part 2.** Calhoun purchases a used machine for \$167,000 cash on January 2 and readies it for use the next day at a \$3,420 cost. On January 3, it is installed on a required operating platform costing \$1,080, and it is readied for operations. The company predicts the machine will be used for six years and have a \$14,600 salvage value. Depreciation is to be charged on a straight-line basis. On December 31, at the end of its fifth year in operations, it is disposed of.

**Required**

- Prepare journal entries to record the machine's purchase and the costs to ready and install it. Cash is paid for all costs incurred.
- Prepare journal entries to record depreciation of the machine at December 31 of its first year in operations and at December 31 in the year of its disposal.
- Prepare journal entries to record the machine's disposal under each of the following separate assumptions: (i) it is sold for \$13,500 cash; (ii) it is sold for \$45,000 cash; and (iii) it is destroyed in a fire and the insurance company pays \$24,000 cash to settle the loss claim.

**Problem 10-5A**

Depreciation methods; disposal of plant asset

C3 P1 P2 P4



**Check** Year 4: Units-of-Production Depreciation, \$44,640; DDB Depreciation, \$6,250

(b) Depr. Exp., \$26,150

(iii) Dr. Loss from Fire,

\$16,750