

Solution:

(1)

The total mileage travelled by the truck is given by 170,000. Since the estimated life is 200,000 miles, it covered almost 85% of its life.

Thus, the expected decrease in its value is given by:

$$\text{Depreciation} = 0.85 \times (100,000 - 10,000) = \$76,500$$

(2)

The new book price at the point of sale will be

$$\text{Sale price} = \$100,000 - \$76,500 = \$24,500$$

Thus, there will be a net gain and the gain will be:

$$\text{Net Gain} = \$40,000 - \$24,500 = \$15,500$$