

**Solution:**

(1)

The LIFO inventory at the beginning is valued at \$118.2 million less than the FIFO inventory.

The LIFO inventory at the end is valued at \$119.8 million less than the FIFO inventory.

Thus, the change in inventory (end – beginning) is valued at \$1.6 million less than the FIFO inventory.

This change means that the current purchase during the period has a higher value compared to the previous purchase (since the difference is negative.)

This implies that the current inventories' cost is generally increasing.

(2)

(a)

Under the current method, the inventory valuation is given by \$532.6 million, and the sale is \$1,000 million.

Thus, the gross profit is \$467.4 million.

(b)

If all inventories were in FIFO, then the cost would be \$119.8 million higher compared to LIFO on December 31, 2011.

Thus, the stock value under FIFO would have been  $\$532.6 + \$119.8 = \$652.4$  million.

Thus, the gross profit is \$347.6 million.

The former method creates higher gross profit because it uses LIFO inventories and the company undergoes LIFO liquidation, which creates extremely high gross profits since their valuations are lower than their FIFO counterpart's valuations.