

FA Module 8 Inventory FIFO practice exam questions

(The attached PDF file has better formatting.)

A firm buys inventory in Country W and resells it to customers in Country Z.

- At year-end 20X0, the firm has 189 units of inventory that cost 8.80 apiece.
- In 20X1, the firm buys 503 units at 10.50 apiece and sells 361 units for 16.10 apiece.
- In 20X2, the firm buys 557 units at 11.30 apiece and sells 542 units for 19.10 apiece.

The firm uses the first-in first-out (FIFO) inventory method.

Question 8.1: Inventory at year-end 20X1

What is the inventory at year-end 20X1?

Answer 8.1: $(189 + 503 - 361) \times 10.50 = 3,475.50$

(Units sold in 20X1 are more than units held at year-end 20X0, so all inventory held at year-end 20X1 uses 20X1 costs.)

Question 8.2: Inventory at year-end 20X2

What is the inventory at year-end 20X2?

Answer 8.2: $(189 + 503 - 361 + 557 - 542) \times 11.30 = 3,909.80$

(Units sold in 20X2 are more than units held at year-end 20X1, so all inventory held at year-end 20X2 uses 20X2 costs.)

Question 8.3: Cost of goods sold in 20X1

What is the cost of goods sold in 20X1?

Answer 8.3: $189 \times 8.80 + 503 \times 10.50 - 3,475.50 = 3,469.20$

(cost of goods sold in 20X1 = units on hand at year-end 20X0 \times cost per unit + units bought in 20X1 \times cost per unit in 20X1 – inventory at year-end 20X1)

Question 8.4: Cost of goods sold in 20X2

What is the cost of goods sold in 20X2?

Answer 8.4: $3,475.50 + 557 \times 11.30 - 3,909.80 = 5,859.80$

(cost of goods sold in 20X2 = inventory at year-end 20X1 + units bought in 20X2 \times cost per unit in 20X2 – inventory at year-end 20X2)

Question 8.5: Inventory turnover in 20X1

What is the inventory turnover in 20X1?

Answer 8.5: $3,469.20 / ((189 \times 8.80 + 3,475.50) / 2) = 1.350$

(inventory turnover = cost of goods sold / average inventory)

Question 8.6: Inventory turnover in 20X2

What is the inventory turnover in 20X2?

Answer 8.6: $5,859.80 / ((3,475.50 + 3,909.80) / 2) = 1.587$

(inventory turnover = cost of goods sold / average inventory)

Question 8.7: Gross profit margin in 20X1

What is the gross profit margin in 20X1?

Answer 8.7: $1 - 3,469.20 / (361 \times 16.10) = 40.31\%$

(gross profit margin = $1 - \text{cost of goods sold} / \text{net revenue}$)

Question 8.8: Gross profit margin in 20X2

What is the gross profit margin in 20X2?

Answer 8.8: $1 - 5,859.80 / (542 \times 19.10) = 43.40\%$

(gross profit margin = $1 - \text{cost of goods sold} / \text{net revenue}$)