# Inventory Costing

Determine COGS and Ending Inventory using: (1) FIFO periodic, (2) FIFO perpetual, (3) LIFO periodic, (4) LIFO perpetual, (5) Weighted Average, and (6) Moving Average.

| **Date** | **Purchases** | **Sales** | **Ending Inventory** |
|---|---|---|---|
| 1/1 | | | 20 units @ $1 |
| 1/22 | 20 units @ $2 | | |
| 2/2 | | 30 units | |
| 3/11 | 70 units @ $3 | | |
| 4/16 | | 40 units | |
| 5/25 | 60 units @ $4 | | |
| 6/19 | 70 units @ $5 | | |
| 7/2 | | 50 units | |
| 7/13 | | 60 units | |
| 8/2 | 40 units @ $6 | | |
| 9/15 | | 50 units | |
| 11/12 | 60 units @ $7 | | |
| 12/30 | | 70 units | |
| | $1,520 = cost of goods available for sale<br><br>340 units available for sale | 300 units sold | 40 units remaining |

**FIFO Periodic (= perpetual)**

| | |
|---|---|
| Ending Inventory: | 40@$7 = $280 |
| Cost of Goods Sold: 300 | 20@$1 = 20 |
| | 20@$2 = 40 |
| | 70@$3 = 210 |
| | 60@$4 = 240 |
| | 70@$5 = 350 |
| | 40@$6 = 240 |
| | 20@$7 = 140 |
| | $1,240 |

**LIFO Periodic**

| | |
|---|---|
| Ending Inventory: 40 | 20@$1 = 20 |
| | 20@$2 = 40 |
| | $60 |
| Cost of Goods Sold: 300 | 60@$7 = 420 |
| | 40@$6 = 240 |
| | 70@$5 = 350 |
| | 60@$4 = 240 |
| | 70@$3 = 210 |
| | $1,460 |

**LIFO Perpetual**

| Date | Purchases | Sales | Ending Inventory |
|---|---|---|---|
| 1/1 | | | 20 units @ $1 |
| 1/22 | 20 units @ $2 | | 20 units @ $1<br>20 units @ $2 |
| 2/2 | | 30: 20@$2 = 40<br>10@$1 = 10 | 10 units @ $1 |
| 3/11 | 70 units @ $3 | | 10 units @ $1<br>70 units @ $3 |
| 4/16 | | 40 @ $3 = 120 | 10 units @ $1<br>30 units @ $3 |
| 5/25 | 60 units @ $4 | | 10 units @ $1<br>30 units @ $3<br>60 units @ $4 |
| 6/19 | 70 units @ $5 | | 10 units @ $1<br>30 units @ $3<br>60 units @ $4<br>70 units @ $5 |
| 7/2 | | 50 @ $5 = 250 | 10 units @ $1<br>30 units @ $3<br>60 units @ $4<br>20 units @ $5 |
| 7/13 | | 60: 20@$5 = 100<br>40@$4 = 160 | 10 units @ $1<br>30 units @ $3<br>20 units @ $4 |
| 8/2 | 40 units @ $6 | | 10 units @ $1<br>30 units @ $3<br>20 units @ $4<br>40 units @ $6 |
| 9/15 | | 50: 40 @ $6 = 240<br>10 @ $4 = 40 | 10 units @ $1<br>30 units @ $3<br>10 units @ $4 |
| 11/12 | 60 units @ $7 | | 10 units @ $1<br>30 units @ $3<br>10 units @ $4<br>60 units @ $7 |
| 12/30 | | 70: 60 @ $7 = 420<br>10 @ $4 = 40 | 10 units @ $1 = 10<br>30 units @ $3 = 90 |
| | $1,520 = cost of goods available for sale | COGS = $1,420 | EI = $100 |

**Weighted Average**

Weighted Average = Costs of Goods Available For Sale / # of Units Available for Sale =

$1,520 / 340 = $4.47

EI = 40 units ($4.47) = $178.80
COGS = 300 units ($4.70) = $1,341.00
$1,519.80*

*Answer is not exact due to rounding

**Moving Average**

| Date | Purchases | Sales | Ending Inventory |
|---|---|---|---|
| 1/1 | | | 20 units @ $1 = $20 |
| 1/22 | 20 units @ $2 | | 40 units @ $1.5 = $60 |
| 2/2 | | 30 @ $1.50 = 45 | 10 units @ $1.5 = $15 |
| 3/11 | 70 units @ $3 | | 80 units @ $2.81 = $224.8 |
| 4/16 | | 40 @ $2.81 = 112.4 | 40 units @ $2.81 = $112.4 |
| 5/25 | 60 units @ $4 | | 100 units @ $3.52 = $352 |
| 6/19 | 70 units @ $5 | | 170 units @ $4.13 = $702.1 |
| 7/2 | | 50 @ $4.13 = 206.5 | 120 units @ $4.13 = $495.6 |
| 7/13 | | 60 @ $4.13 = 247.8 | 60 units @ $4.13 = $247.8 |
| 8/2 | 40 units @ $6 | | 100 units @ $4.88 = $488 |
| 9/15 | | 50 @ $4.88 = 244 | 50 units @ $4.88 = $244 |
| 11/12 | 60 units @ $7 | | 110 units @ $6.04 = $664.4 |
| 12/30 | | 70 @ $6.04 = 422.8 | 40 units @ $6.04 = $241.6 |
| | $1,520 = cost of goods available for sale | COGS = $1,278.5* | EI = $241.6* |

*Rounding may produce a slightly different answer