**Example 1: Basic EOQ Calculation**

* Annual demand (**D**) = 10,000 units
* Ordering cost (**S**) = ₹500 per order
* Holding cost (**H**) = ₹2 per unit per year

EOQ=√(2×10,000×500)/2

√5,000,000=2,236 units

**Interpretation:** The company should order **2,236 units** per order to minimize total inventory costs.

**Example 2: Higher Holding Cost**

* **D** = 8,000 units
* **S** = ₹400 per order
* **H** = ₹5 per unit per year

EOQ=2×8,000×4005=1,280,000=1,131 units

**Interpretation:** A higher holding cost reduces the EOQ to **1,131 units** per order.

**Example 3: Lower Ordering Cost**

* **D** = 15,000 units
* **S** = ₹300 per order
* **H** = ₹4 per unit per year

EOQ=2×15,000×3004=2,250,000=1,500 units

**Interpretation:** A lower ordering cost increases the EOQ to **1,500 units** per order.

**Example 4: Small Business Case**

* **D** = 2,500 units
* **S** = ₹200 per order
* **H** = ₹10 per unit per year

EOQ=2×2,500×20010=100,000=316 units

**Interpretation:** A small business should order **316 units** at a time.

**Example 5: Large-Scale Manufacturing**

* **D** = 50,000 units
* **S** = ₹1,000 per order
* **H** = ₹6 per unit per year

EOQ=2×50,000×1,0006=16,666,667=4,082 units

**Interpretation:** A large-scale manufacturer should order **4,082 units** per order.