**Calculate the TOTAL COST (ordering cost + holding cost) of inventory for two products (dining tables and computer chips). Assume annual demand (D) = 200 units/year for both products and the cost per order (S) and the holding cost per unit (H) for each product are as follows:**

* **Product 1 (dining tables): S1 = $100/order, H1 = $2/unit \* year**
* **Product 2 (computer chip): S2 = $10/order, H2 = $10/unit \* year**

**Calculate ‘total cost’ for each of two different order quantities, Q1 = 10 units/order and Q2 = 50 units/order.**

**Reminder: TOTAL COST = (D/Q)S + (Q/2)H**

What is the TOTAL COST for each scenario (you will make 4 calculations)?

Product 1

(200/10) \*100+(10/2) \* 2 = 2010

(200/50) \*100+(50/2) \* 2 = 450

Product 2

(200/10) \*10+(10/2) \*10 = 250

(200/50) \*10+(50/2) \* 10 = 290

Which order quantity (10 units/order or 50 units/order) is best for each product?

10/2 = 5

50/2 = 25

10 is best for product 2 and not for product 1

What did you learn, i.e., what is the relationship between S, H, Q and total cost?

As our ordering quantity increases our total cost can decrease depending on how much it costs to store the product