(1)

Location Time Item SUM(Quantity)

ALL ALL ALL 5100

(2)

SELECT Location, Time, Item, Sum(Quantity)

FROM Sales

Group by Location, Time, Item

(3)

Location Time Item SUM(Quantity)

(4)

Location Time Item Quantity

1 1 1 1400

1 2 1 1500

1 2 3 500

2 1 2 1700

f(Location, Time, Item) = 3 \* Location + 3 \* Time + Item

Location Time Item Quantity offset

1 1 1 1400 7

1 2 1 1500 10

1 2 3 500 12

2 1 2 1700 11

ArrayIndex Value

7 1400

10 1500

11 1700

12 500