

* Tally

i	j	K(j)	Contador
1	2	1,2	2
	3	1,2,3	3
	4	1,2,3,4	4
	5	1,2,3,4,5	5
2	3	1,2,3	3
	4	1,2,3,4	4
	5	1,2,3,4,5	5
3	4	1,2,3,4	4
	5	1,2,3,4,5	5
4	5	1,2,3,4,5	5

Total $\rightarrow 40$

$$T_m = \sum_{i=1}^{n+1} \sum_{j=i+1}^n \sum_{k=1}^j 1$$

$$= \sum_{i=1}^{n+1} \left(\sum_{j=i+1}^n 1 \right)$$

$$\sum_{j=i+1}^n 1 = \frac{n(n+1)}{2} - \frac{i(i+1)}{2}$$

$$T_m = \sum_{i=1}^{n+1} \left(\frac{n(n+1)}{2} - \frac{i(i+1)}{2} \right)$$

$$T_m = \sum_{i=1}^{n+1} \frac{n(n+1)}{2} - \sum_{i=1}^{n+1} \frac{i(i+1)}{2}$$

$$T_m = (n-1) \cdot \frac{n(n+1)}{2} - \frac{1}{2} \sum_{i=1}^{n+1} i(i+1)$$

$$\sum_{i=1}^{n+1} i(i+1) = \frac{(n-1)n(n+1)}{3}$$

$$T_m = \frac{(n-1)n(n+1)}{2} - \frac{1}{2} \cdot \frac{(n-1)n(n+1)}{3}$$

$$T_m = \frac{(n-1)n(n+1)}{2} \left(1 - \frac{1}{3} \right)$$

$$T_m = \frac{(n-1)n(n+1)}{2} \cdot \frac{2}{3} = \frac{(n-1)n(n+1)}{3}$$

$$T_m = \frac{(n-1)n(n+1)}{3} = \frac{(5-1)(5)(5+1)}{3} = \frac{(4)(5)(6)}{3}$$

$$= \frac{120}{3}$$

$$= 40$$