

Z₂) for (i=0; i < n-1; i++)

$$\sum_{i=0}^{n-2} 1 + 1 = n-1+1 = n$$

Z₃) $\sum_{i=0}^{n-2} 1 = n-1$

Z₄) $\sum_{i=0}^{n-2} \binom{2}{0}$

$$\sum_{i=0}^{n-2} (n-i) = \sum_{i=0}^{n-2} (n) - \sum_{i=0}^{n-2} (i)$$

$$= n \sum_{i=0}^{n-2} (1) - \sum_{i=0}^{n-2} (i)$$

$$= n(n-1) - \sum_{i=0}^{n-2} (i)$$

$$= \frac{2n^2 - 2n - n^2 + 3n - 2}{2}$$

$$= \frac{n^2 + n}{2} - 1$$

for (j=1; j < n-i; j++)

$$\Downarrow$$

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

$$\sum_{i=0}^{n-2} (i) = \frac{n^2+n}{2} - (n-1) - n$$

$$= \frac{n^2+n-2n+2-2n}{2}$$

$$= \frac{n^2 - 3n + 2}{2}$$

$$Z_5) \sum_{i=0}^{n-2} (n-i-1)$$

$$= \sum_{i=0}^{n-2} (n-i) - \sum_{i=0}^{n-2} (1)$$

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

$$= \frac{n^2 + n - 2 - 2n + 2}{2} = \frac{n^2 - n}{2}$$

Kosten

$$Z_1) \text{Zuweisung (1,0)} = 1,0$$

$$Z_2) \text{Subtraktion (1,4)} + \text{Sprung (1,5)} = 2,9$$

$$Z_3) \text{Zuweisung (1,0)} = 1,0$$

$$Z_4) \text{Subtraktion (1,4)} + \text{Sprung (1,5)} = 2,9$$

$$Z_5) 2 \times \text{Matrix (3,2)} + \text{Vergleich (1,5)} + \text{Sub (1,4)} = 9,3$$

$$Z_6) \text{Zuweisung (1,0)} + \text{Matrix (3,2)} + \text{Sub (1,4)} = 5,6$$

$$Z_7) 2 \times \text{Matrix (3,2)} + \text{Zuweisung (1,0)} + \text{Sub (1,4)} = 8,4$$

$$Z_8) \text{Matrix (3,2)} + \text{Zuweisung (1,0)} = 4,2$$

$$Z_9 = Z_{10}) \text{Zuweisung (1,0)} + \text{Add (1,4)} = 2,4$$