

$$1) \quad r_{ii} = \|v_i\|$$

$\left. \begin{array}{l} n \text{ multiplications} \\ n-1 \text{ additions} \\ 1 \text{ square root} \end{array} \right\}$

$$q_i = v_i / r_{ii}$$

n divisions

$$r_{ij} = q_i^* \cdot v_j$$

$\left. \begin{array}{l} n \text{ multiplications} \\ n-1 \text{ additions} \end{array} \right\}$

$$v_j = v_j - r_{ij} q_i$$

$\left. \begin{array}{l} n \text{ multiplications} \\ n \text{ subtractions} \end{array} \right\}$

The formula:

$$f(n) = \sum_{i=1}^n \left[2n + nt \sum_{j=i+1}^n 2n-1 + 2n \right]$$

which sums to:

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