$$T_1(n) = 1 + (n+1)\cdot \underset{(1+1)}{2} + 1 = 2\cdot(n+2) \asymp \underline{\underline{n}}$$

$$T_2(n) = 1 + (n+1)(n+1)\cdot 2 + 1 \asymp n^2$$

$$T_3(n) = 2 + \sum_{i=1}^{n} 2i = 2\left(1 + \sum_{i=1}^{n} i\right) = \underline{2 + n(n+1)} \asymp n^2$$

$$T_4(n) = 2 + \left\lfloor \frac{n}{3} \right\rfloor \cdot 2 \asymp n \quad \Big| \quad \sum_{i=1}^{n} i^2 = \frac{n(n+1)(2n+1)}{6}$$

$$t_5(n) = 2 + \sum_{i=1}^{n} \left(\left\lfloor \frac{n}{i} \right\rfloor \cdot 2 \right) = 2\left(1 + \sum_{i=1}^{n} \left\lfloor n \cdot \frac{1}{i} \right\rfloor \right) \approx$$

$$\frac{n}{i}$$

$$2 + 2\sum_{i=1}^{n} \frac{n}{i} = 2 + 2n \sum_{i=1}^{n} \frac{1}{i} \asymp n \lg n$$

$$\asymp \lg n \qquad \asymp \lg n$$

$$\ln \frac{x}{1+x}$$

$$n \lg n$$

$$\sum_{i=1}^{n} \frac{1}{i} \asymp \lg n$$

$$T_6(n) = 2 + 2\boxed{n^2} + n^2 \simeq n^2$$

$$\left[\begin{array}{l} \text{for } i = 1 \ldots n \\ \quad \text{for } j = 1 \ldots i \\ \quad\quad \text{for } k = 1 \ldots j \\ \quad\quad\quad \text{op} \end{array}\right\} \quad \sum_{i=1}^{n} \left(\sum_{j=1}^{i} \left(\sum_{k=1}^{j} 13 \right) \right) =$$

$$3 \sum_{i=1}^{n} \sum_{j=1}^{i} j =$$

$$3 \sum_{i=1}^{n} \frac{i(i+1)}{2} =$$

$$\frac{3}{2}\sum_{i=1}^{n} i(i+1) = \frac{3}{2}\left[\sum_{i=1}^{n} i + \sum_{i=1}^{n} i^2\right] =$$

$$\frac{3}{2}\left[\underbrace{\frac{n(n+1)}{2}}_{n^2} + \underbrace{\frac{(n+1)n(2n+1)}{6}}_{n^3}\right] \simeq n^3$$

mov 0
mov i 1
mov j 1
jeq