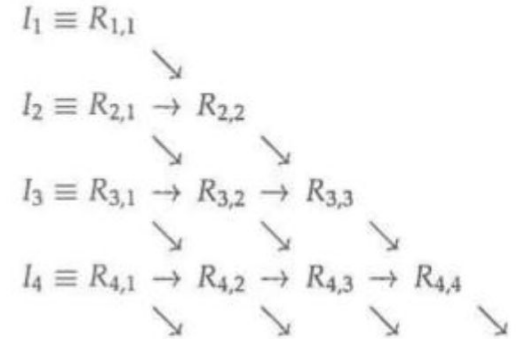


Romberg Integration

$$R_{i,1} = I_i, \quad R_{i,2} = I_i + \frac{1}{3}(I_i - I_{i-1}) = R_{i,1} + \frac{1}{3}(R_{i,1} - R_{i-1,1}). \quad (5.42)$$

$$R_{i,m+1} = R_{i,m} + \frac{1}{4^m - 1}(R_{i,m} - R_{i-1,m}),$$



Limitations:

- May not work efficiently for functions that have noise or wild fluctuations