$$B_{(k+1)\Delta} = B_0 + \sum_{i=0}^{k} \varepsilon_{(i+1)\Delta}$$, где $\varepsilon_{(i+1)\Delta} \sim N(0,\Delta)$

$$M\left[B_{(k+1)\Delta}\right] = M\left[B_0 + \sum_{i=0}^{k} \varepsilon_{(i+1)\Delta}\right] = M\left[B_0\right] + \sum_{i=0}^{k} M\left[\varepsilon_{(i+1)\Delta}\right]$$

Так как B_0 = 0 => $M\left[B_{(k+1)\Delta}\right] = \sum_{i=0}^{k} M\left[\varepsilon_{(i+1)\Delta}\right]$, где $\varepsilon_{(i+1)\Delta}$ нормальные величины с нулевым средним

Таким образом $M\left[B_{(k+1)\Delta}\right] = 0$

$$M\left[B^2{}_{(k+1)\Delta}\right] = M\left(\sum_{i=0}^{k} \varepsilon_{(i+1)\Delta}\right)^2 = M\left(\sum_{i=0}^{k} \varepsilon^2{}_{(i+1)\Delta} + \sum_{j\neq i=0}^{k} \varepsilon_{(i+1)\Delta}\varepsilon_{(j+1)\Delta}\right) = M\left(\sum_{i=0}^{k} \varepsilon^2{}_{(i+1)\Delta}\right) = \sum_{i=0}^{k} M\varepsilon^2{}_{(i+1)\Delta} = \Delta\sum_{i=0}^{k} 1 = \Delta k$$

$$M\left[B_{k\Delta}B_{l\Delta}\right] = M\left(\sum_{i=1}^{k} \varepsilon_{i\Delta} \sum_{j=1}^{l} \varepsilon_{j\Delta}\right) = M\left(\sum_{i=1}^{\boldsymbol{min}(k,l)} \varepsilon^2{}_{i\Delta} + \sum_{j\neq i=1}^{\boldsymbol{min}(k,l)} \varepsilon_{i\Delta}\varepsilon_{j\Delta} + \sum_{i=\boldsymbol{min}(k,l)+1}^{\boldsymbol{max}(k,l)} \varepsilon_{i\Delta} \sum_{j=1}^{\boldsymbol{min}(k,l)} \varepsilon_{j\Delta}\right) = M\left(\sum_{i=1}^{\boldsymbol{min}(k,l)} \varepsilon^2{}_{i\Delta}\right) + 0 + 0 = \sum_{i=1}^{\boldsymbol{min}(k,l)} M\varepsilon^2{}_{i\Delta} =$$

$$= \Delta \sum_{i=1}^{\boldsymbol{min}(k,l)} 1 = \Delta\,\boldsymbol{min}(k,l)$$