Let $X := (x_n)$ and $Y := (y_n)$ by sequences in $\mathbb{R}$ and let the partial sums of $\sum (y_n)$ be denoted by $\left(s_)n\right)$ with $s_0 := 0$

If $m > n$, then

$$\sum_{k=n+1}^{m} [x_k y_k] = (x_m s_m - x_{n+1} s_n) + \sum k = n + 1^{m-1} (x_k - x_k + 1) s_k \qquad (1)$$