$$n \times (m-n+1) + \sum_{k=1}^{\infty} (n-k)$$

$$= n(m-n+1) + (n+2-n+n) + (n+n+1)$$

$$= n(m-n+1) + (n+n+n) + (n+n+n) + (n+n+n)$$

$$= n(m+n+1) + (n+n+n) + (n+n+n) + (n+n+n)$$