Sumatoria $(m) = \sum_{i=n}^{m} i =$

$1 + 2 + 3 + \dots + (m-1) + m$

Sumatoria $(m-1)$

Sumatoria $(n) = \sum_{i=n}^{n} i = n$

Sumatoria $(m) = m(m+1)/2$

$f_1(m) = \sum_{i=0}^{m} 2^i =$

$2^0 + 2^1 + \dots + 2^{m-1} + 2^m$

$f_1(m-1)$

$f_1(0) = \sum_{i=0}^{0} 2^i = 2^0 = 1$

$f_1(m) = \sum_{i=1}^{m} 2^i = 2^{m+1} - 1$

$f_2(m,q) = \sum_{i=1}^{m} q^i =$

$q^1 + q^2 + \dots + q^{m-1} + q^m$

$f_2(m-1, q)$

$f_2(0, m) = \sum_{i=1}^{0} q^i = 0$

$f_3(m,q) = \sum_{i=1}^{2m} q^i =$

$q^{2(m-1)}$

$q^1 + q^2 + \dots + q^{2m-2} + q^{2m-1} + q^{2m}$

$f_3(m-1, q)$

$f_3(0, q) = 0$

Otra forma $f_3(m,q) = f_2(2m, q)$

$f_4(m,q) = \sum_{i=m}^{2m} q^i =$

$q^{2(m-1)}$

$q^{m-1} + q^m + q^{m+1} + \dots + q^{2m-2} + q^{2m-1} + q^{2m} - q^{m-1}$

$f_4(m-1, q)$

$f_4(0, q) = \sum_{i=0}^{0} q^i = q^0 = 1$

$f_4(m,q) = \sum_{i=m}^{2m} q^i =$

$q^1 + q^2 + \dots + q^{m-1} + q^m + q^{m+1} + \dots + q^{2m-2} + q^{2m-1} + q^{2m} -$

$f_3(m,q)$

$- (q^1 + \dots + q^{m-1})$

$f_2(m-1, q)$

$\hat{e}(m) = \sum_{i=0}^{m} \frac{1}{i!} =$

$\frac{1}{0!} + \frac{1}{1!} + \dots + \frac{1}{(m-1)!} + \frac{1}{m!}$

$\hat{e}(m-1)$

$\hat{e}(0) = \sum_{i=0}^{0} \frac{1}{0!} = 1$

$f(m,m) =$

$1^1 + 1^2 + \dots + 1^m +$

$2^1 + 2^2 + \dots + 2^m +$

$\vdots$

$(m-1)^1 + (m-1)^2 + \dots + (m-1)^m +$

$f(m-1, m)$

$+$

$m^1 + m^2 + \dots + m^m$

$f_2(m, m)$

$f(0, m) = 0$

$sp(q,m,vm) = \sum_{a=1}^{m} \sum_{b=1}^{m} q^{a+b} =$

$q^{1+1} + q^{1+2} + \dots + q^{1+(m-1)} + q^{1+m}$

$q^{2+1} + q^{2+2} + \dots + q^{2+(m-1)} + q^{2+m}$

$\vdots$

$q^{m+1} + q^{m+2} + \dots + q^{m+(m-1)} + q^{m+m}$

$sp(q, m, m-1)$

$\sum_{i=1}^{m} q^{i+m}$

$sp(q, m, 0) = 0$

$q^m \sum_{i=1}^{m} q^i$

$q^m f_2(m, q)$

$sr(m,m) = \sum_{p=1}^{m} \sum_{q=1}^{m} p/q =$

$\frac{1}{1} + \frac{1}{2} + \dots + \frac{1}{m-1} + \frac{1}{m}$

$\frac{2}{1} + \frac{2}{2} + \dots + \frac{2}{m-1} + \frac{2}{m}$

$\vdots$

$\frac{m}{1} + \frac{m}{2} + \dots + \frac{m}{m-1} + \frac{m}{m}$

$sr(m, m-1)$

$\sum_{i=1}^{m} \frac{i}{m}$

$\sum_{i=1}^{m} i / m$

Sumatoria (m)

$sr(m, 0) = 0$