

# INDIANA SERCI

$$\prod_{n=1}^{\infty} (1-q^n) = 1 + \sum_{m=1}^{\infty} (-1)^m q^{\frac{1}{2}m(m+1)} (1+q^m)$$

$$\prod_{n=1}^{\infty} (1+t^n) = \sum_{k=0}^{\infty} \frac{t^{\binom{k+1}{2}}}{(1-t)(1-t^2)\dots(1-t^k)}$$

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$$\prod_{n=1}^{\infty} (1-q^n) = \sum_{m=0}^{\infty} (-1)^m q^{\frac{1}{2}m(3m-1)}$$

$$p(n) = p(n-1) + p(n-2) + p(n-3) + \dots$$

$$h_n = \frac{n!}{\prod_{x \in \lambda} h(x)}$$

$$\sum_{n=0}^{\infty} p(n) x^n = \prod_{i=1}^{\infty} \frac{1}{(1-x^i)^i}$$

$$\prod_{n=1}^{\infty} (1-q^{2n}) (1+q^{2n-1}t) (1+q^{2n-2}t^2) = \sum_{n=1}^{\infty} q^{n^2} t^n$$

$$\sum_{n=0}^{\infty} p(n) q^n = \prod_{i=1}^{\infty} \frac{1}{(1-q^i)^i}$$

$$n! = \sum_{\lambda \vdash n} f_{\lambda}^2$$

AND THE QUEST FOR  
THE COST PARTITIONS