Maths of the Day

$$\sum_{n=1}^{\infty} \frac{1}{n}\left(\zeta(2)-1-\frac{1}{2^2}-\cdots-\frac{1}{n^2}\right)\left(\zeta(3)-1-\frac{1}{2^3}-\cdots-\frac{1}{n^3}\right)$$

$$= \zeta^2(3) - \frac{61}{48}\zeta(6)$$