$$\sum_{k=1}^{n} \frac{1}{k^2 + 1}$$

$$S_n = \sum_{k=1}^{n} a_k = 0 + a_1 + a_2 + a_3 + \dots + a_n$$

$$S = 0$$

$$S = S + a_1$$

$$S = S + a_2$$