

## CÁLCULO DE SOMATÓRIAS

Prof. Vargas

1)

$$S = \frac{1000}{1} - \frac{997}{2} + \frac{994}{3} - \frac{991}{4} + \dots$$

2)

$$S = \frac{37 \times 38}{1} + \frac{36 \times 37}{2} + \frac{35 \times 36}{3} + \dots + \frac{1 \times 2}{37}$$

3)

$$S = \frac{1}{1} - \frac{2}{4} + \frac{3}{9} - \frac{4}{16} + \frac{5}{25} - \frac{6}{36} \dots - \frac{10}{100}$$

4)

$$S = \frac{2^1}{50} + \frac{2^2}{49} + \frac{2^3}{48} + \dots + \frac{2^{50}}{50}$$

5)

$$S = \frac{1}{225} - \frac{2}{196} + \frac{4}{169} - \frac{8}{144} + \dots + \frac{16384}{1}$$

6)

$$S = \frac{480}{10} - \frac{475}{11} + \frac{470}{12} - \frac{465}{13} + \dots$$

7)

$$S = \frac{1}{1} + \frac{3}{2} + \frac{5}{3} + \frac{7}{4} + \dots + \frac{99}{50}$$

8)

$$S = \frac{1}{1^3} - \frac{1}{3^3} + \frac{1}{5^3} - \frac{1}{7^3} + \frac{1}{9^3} \dots$$

9)

$$S = 4 - \frac{4}{3} + \frac{4}{5} - \frac{4}{7} + \frac{4}{9} - \frac{4}{11} + \dots$$

10)

$$S = 63 + \frac{61}{1!} + \frac{59}{2!} + \frac{57}{3!} + \dots$$

11)

$$S = x - \frac{x^2}{3!} + \frac{x^4}{5!} - \frac{x^6}{7!} + \dots$$