

## Series and Sigma notation

**Def:** A series is just a sequence where all the terms are added together (can be infinite, or finite).

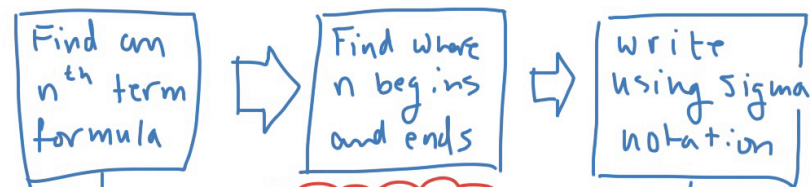
ex:  $2 + 4 + 6 + 8 + \dots + 100$

$t_n = 2n$        $\sum_{n=1}^{50} 2n$

"sigma" →

**Ex 1** write the series in expanded form:

$$\sum_{n=1}^4 (-1)^{n+1} \left(\frac{5}{2n}\right)$$

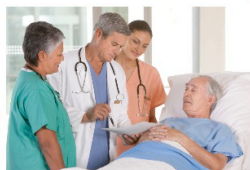


you need patience!

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or just find a pattern silly!

$$\sum_{n=1}^{\infty} u$$



Write using sigma notation

**Ex 2**  $7 + 14 + 21 + \dots + 700$

**Ex 3**  $\frac{1}{5} + \frac{1}{7} + \frac{1}{9} + \frac{1}{11} + \dots$