

Sigma Notation

The Greek letter, capital sigma, means 'sum'.

The numbers top and bottom tells us what r varies between. It goes up by 1 each time.

$$\sum_{r=1}^5 (2r + 1)$$

We work out this expression for each value of r (between 1 and 5), and add them together.

	First few terms?	Values of a , n , d or r ?	Final result?
$\sum_{n=1}^7 3n$			
$\sum_{k=5}^{15} (10 - 2k)$			
$\sum_{k=1}^{12} 5 \times 3^{k-1}$			
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Test Your Understanding

Evaluate

$$\sum_{r=10}^{30} (7 + 2r).$$



"Use of Technology" Monkey says:
The Classwiz and Casio Silver calculator has a Σ button.

Try and use it to find:

$$\sum_{k=5}^{12} 2 \times 3^k$$

