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08	1f	Find the sum of the first 21 terms of the arithmetic series $3 + 7 + 11 + \dots$	2
<p>Using $S_n = \frac{n}{2}(2a + (n - 1)d)$ with $a = 3$, $d = 4$ and $n = 21$</p> $= \frac{21}{2} (2(3) + (21 - 1)4)$ $= \frac{21}{2} (6 + 20 \times 4)$ $= \frac{21}{2} \times 86$ $= 903 \qquad \therefore \text{sum is } 903$			

* These solutions have been provided by *projectmaths* and are not supplied or endorsed by the Board of Studies

Board of Studies: Notes from the Marking Centre

In weaker responses, candidates found the common difference but did not complete this part as they used an incorrect sum formula or incorrectly substituted into their correct formula. Some responses found the 21st term of the series instead of the sum of 21 terms. A number of candidates got the correct answer by adding all 21 terms on their calculator at a considerable cost in time.

Source: http://www.boardofstudies.nsw.edu.au/hsc_exams/