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| **Topic 1: Number and Algebra**  | **Arithmetic Sequences and Series** |
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| 1. In an arithmetic sequence, the first term is 7 and the second is 12.
	1. Find the common difference
	2. Find the 15th term of the sequence
	3. Find the sum of the first 20 terms of the sequence
 | (2 marks)(2 marks)(2 marks) |
| Mark scheme:1. $d=12-7$

$$d=5$$1. $u\_{15}=7+\left(15-1\right)\left(5\right)$

$$u\_{15}=77$$1. $S\_{20}= \frac{20}{2}(2\left(7\right)+\left(20-1\right)\left(5\right))$

$S\_{20}=1090$  | (M1)(A1)(M1)(A1)(M1)(A1) |