**Sequences and Series Formula Sheet**

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| **Arithmetic Sequence:** | The ***nth*** term ***an*** of an arithmetic sequence is given by:  where ***a1*** is the first term and ***d*** is the common difference. |
| **Recursive Arithmetic Sequence:** | where ***d*** is the common difference. |
| **Geometric Sequence:** | The ***nth*** term ***an*** of a geometric sequence is given by  where ***a1*** is the first term and ***r*** is the common ratio. |
| **Recursive Geometric Sequence:** | where ***r*** is the common ratio. |
| **Geometric Series:** | The sum ***Sn*** of the first ***n*** terms of a geometric series is given by:  where ***a1*** is the first term and ***r*** is the common ratio. |

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