| Using $U_{\boldsymbol{n}}=a+(n-1) d$ with Arithmetic Sequences |  |  |  |
| :---: | :---: | :---: | :---: |
| (a) | (b) | (c) | (d) |
| Find $a$ and $d$ for the sequence $20,27,34,41, \ldots$ | Find $a$ and $d$ for the sequence $4,1,-2,-5, \ldots$ | Given that $a=8$ and $d=0.3$, write down the first 5 terms of the sequence | Given that $a=-2$ and $d=0.5$, write down the first 5 terms of the sequence |
| (e) | (f) | (g) | (h) |
| Given that the first term is 5 and the common difference is 3 , find the $21^{\text {st }}$ term. | $a=6, d=-5$ <br> Find the value of the $17^{\text {th }}$ term | $a=1.1, d=0.3$ <br> Find the value of $u_{80}$ | Given that the first term is 80 and the common difference is -7 , find $u_{35}$ |
| (i) | (j) | (k) | (1) |
| The first term of an arithmetic sequence is 4 and the $11^{\text {th }}$ term is -2 . Find the common difference. | In an arithmetic series $u_{1}=9$ and $u_{15}=44$. Find the first term and common difference. | The $2^{\text {nd }}$ term of an arithmetic sequence is -2.5 and the $9^{\text {th }}$ term is -13 . Find $u_{20}$ | In an arithmetic series $u_{5}=-2$ and $u_{20}=118$. Find $u_{75}$ |
| (m) | ( n ) | (0) | (p) |
| Given that $u_{1}+u_{6}=25$ and $u_{3}+u_{10}=43$, find the values of $a$ and $d$. | The first term of a sequence is twice the common difference. Given that the $21^{\text {st }}$ term is 110 , find the value of $a$ and $d$. | The first term of an arithmetic sequence is three more than the common difference. Given that $u_{14}=-25, \text { find } u_{50}$ | Write an expression in terms of $a$ and $d$ for the sum of the first ten terms of an arithmetic sequence. |

