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| **Using** $U\_{n}=a+\left(n-1\right)d$ **with Arithmetic Sequences** |
| **(a)** | **(b)** | **(c)** | **(d)** |
| Find $a$ and $d$ for the sequence $20, 27, 34, 41,…$ | Find $a$ and $d$ for the sequence $4, 1, -2, -5,…$ | 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 21st term. | $$a=6, d=-5$$Find the value of the 17th term | $$a=1.1, d=0.3$$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)** | **(l)** |
| The first term of an arithmetic sequence is$ 4$ and the 11th 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 2nd term of an arithmetic sequence is $-2.5$ and the 9th term is $-13$. Find $u\_{20}$ | In an arithmetic series $u\_{5}=-2$ and $u\_{20}=118$. Find $u\_{75}$ |
| **(m)** | **(n)** | **(o)** | **(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 21st 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 $u\_{14}=-25$, find $u\_{50}$ | Write an expression in terms of $a$ and $d$ for the sum of the first ten terms of an arithmetic sequence. |