|  |
| --- |
| **Using the Nth Term of Sequences** |
| $$u\_{n}=\frac{6n}{n+7}$$ | $$u\_{n}=\frac{4n+3}{n+1}$$ | $$u\_{n}=\frac{10-3n}{2+n}$$ | $$u\_{n}=\frac{4n^{2}}{n^{2}+8}$$ |
| **(a)** | **(a)** | **(a)** | **(a)** |
| Find the value of $u\_{8} $as a fraction in its simplest form. | Find the value of $u\_{9}$. | Find the $6^{th}$ term. | Find the value of $u\_{5}$ as a mixed number. |
| **(b)** | **(b)** | **(b)** | **(b)** |
| A term of the sequence is $\frac{11}{3}$ Find the value of $n$. | A term of the sequence is $\frac{15}{4}$ Find the value of $n$. | A term of the sequence is $-\frac{7}{5}$ Find the value of $n$. | Find the term in the sequence closest to $3.8$ |
| **(c)** | **(c)** | **(c)** | **(c)** |
| Find the difference between the $5^{th}$ term and the $9^{th}$ term. | Find the sum of the $4^{th}$ term and the $14^{th}$ term. | Find $2u\_{10}-u\_{16}$ | Find the difference between the $8^{th}$ term and the $10^{th}$ term. |
| **(d)** | **(d)** | **(d)** | **(d)** |
| Find the first term in the sequence that is greater than $4$ | Find the first term in the sequence that is greater than $3.9$ | Find the first term in the sequence that is negative. | Find the smallest value of $n$ for which $u\_{n}>\frac{7}{2}$ |