

## Using the Nth Term of Quadratic Sequences

$u_n = n^2 + 3n - 5$	$u_n = 3n^2 - n + 1$	$u_n = n^2 - 2n$	$u_n = n^2 + an - b$
<b>(a)</b>	<b>(a)</b>	<b>(a)</b>	<b>(a)</b>
Find the value of $u_4$  <b>23</b>	Find the value of $u_6$  <b>103</b>	Find the $9^{th}$ term of the sequence.  <b>63</b>	Find the value of $u_5$ in terms of $a$ and $b$ .  <b><math>25 + 5a - b</math></b>
<b>(b)</b>	<b>(b)</b>	<b>(b)</b>	<b>(b)</b>
Find the difference between the $6^{th}$ term and the $7^{th}$ term.  <b>16</b>	Find the sum of the $9^{th}$ term and the $10^{th}$ term.  <b>526</b>	Find an expression for the $(n + 1)^{th}$ term.  <b><math>n^2 - 1</math></b>	Find the value of $u_7$ in terms of $a$ and $b$ .  <b><math>49 + 7a - b</math></b>
<b>(c)</b>	<b>(c)</b>	<b>(c)</b>	<b>(c)</b>
A term of the sequence is 65 Find the value of $n$ .  <b><math>(n + 10)(n - 7) = 0</math></b>  <b><math>n = 7</math></b>	A term of the sequence is 103 Find the value of $n$ .  <b><math>(3n + 17)(n - 6) = 0</math></b>  <b><math>n = 6</math></b>	Find an expression for the difference between the $n^{th}$ and the $(n + 1)^{th}$ term.  <b><math>2n - 1</math></b>	Given that $u_5 = 25$ and $u_7 = 70$ , find the values of $a$ and $b$ .  <b><math>a = 4</math></b> <b><math>b = 7</math></b>