

1. Given the following rule, give the first four terms of the sequence that starts with $n = 1$.

<p>1st term</p> $t = n + 3$ $t = 1 + 3$ $t = 4$	<p>2nd</p> $t = n + 3$ $t = 2 + 3$ $t = 5$	<p>3rd</p> $t = n + 3$ $t = 3 + 3$ $t = 6$	<p>4th</p> $t = n + 3$ $t = 4 + 3$ $t = 7$	4, 5, 6, 7
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2. Given the following rule, give the first four terms of the sequence that starts with $n = 0$.

<p>1st</p> $t = 4n + 3$ $t = 4(0) + 3$ $t = 0 + 3$ $t = 3$	<p>2nd</p> $t = 4n + 3$ $t = 4(1) + 3$ $t = 4 + 3$ $t = 7$	<p>3rd</p> $t = 4n + 3$ $t = 4(2) + 3$ $t = 8 + 3$ $t = 11$	<p>4th</p> $t = 4n + 3$ $t = 4(3) + 3$ $t = 12 + 3$ $t = 15$	3, 7, 11, 15
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3. State the rule of the sequence of even numbers 2, 4, 6, 8, ... where we start with $n = 1$.

Rule of even numbers = $t = 2 \times n$

$n = 1$ $t = 2n$ $t = 2(1)$ $t = 2$	$n = 2$ $t = 2n$ $t = 2(2)$ $t = 4$
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4. Given the rule of the sequence below, what term t has a rank r of 3?

Let $r = 3$

$$t = r^2 - 2$$

$$t = 3^2 - 2$$

$$t = 9 - 2$$

$$t = 7$$

7 has a rank of 3 for $t = r^2 - 2$

5. Given the rule of the sequence below, what is the rank r of the term $t = 20$?

Let $t = 20$ and solve for r

$$t = 5r$$

$$20 = 5r$$

$$5 \times 4 = 20 = r$$

$4 = r$

The rank of $t = 20$ is 4.