

# Decode the Joke Nth Term of a Linear Sequence

Find the nth term for each of the letters of the alphabet.

<b>A</b>	2, 4, 6, 8, ...	$2n$
<b>B</b>	3, 5, 7, 9, ...	$2n + 1$
<b>C</b>	2, 5, 8, 11, ...	$3n - 1$
<b>D</b>	6, 11, 16, 21, ...	$5n + 1$
<b>E</b>	3, 6, 9, 12, ...	$3n$
<b>F</b>	2, 6, 10, 14, ...	$4n - 2$
<b>G</b>	9, 11, 13, 15, ...	$2n + 7$
<b>H</b>	-2, 1, 4, 7, ...	$3n - 5$
<b>I</b>	9, 16, 23, 30, ...	$7n + 2$
<b>J</b>	8, 16, 24, 32, ...	$8n$
<b>K</b>	-2, -4, -6, -8, ...	$-2n$
<b>L</b>	-2, -1, 0, 1, ...	$n - 3$
<b>M</b>	-3, -1, 1, 3, ...	$2n - 5$

<b>N</b>	-3, -6, -9, -12, ...	$-3n$
<b>O</b>	9, 8, 7, 6, ...	$10 - n$
<b>P</b>	10, 8, 6, 4, ...	$12 - 2n$
<b>Q</b>	-4, -8, -12, -16, ...	$-4n$
<b>R</b>	17, 14, 11, 8, ...	$20 - 3n$
<b>S</b>	-6, -3, 0, 3, ...	$3n - 9$
<b>T</b>	-1, -2, -3, -4, ...	$-n$
<b>U</b>	0.5, 1, 1.5, 2, ...	$0.5n$
<b>V</b>	-3, -4, -5, -6, ...	$-n - 2$
<b>W</b>	2.5, 4, 5.5, 7, ...	$1.5n + 1$
<b>X</b>	2.5, 2, 1.5, 1, ...	$3 - 0.5n$
<b>Y</b>	0.5, -1, -2.5, -4, ...	$2 - 1.5n$
<b>Z</b>	2, 3.5, 5, 6.5, ...	$1.5n + 0.5$

Now decode the joke...

$1.5n + 1$	$3n - 5$	$2n$	$-n$		$7n + 2$	$3n - 9$		$2n$		$2n + 1$
<b>W</b>	<b>H</b>	<b>A</b>	<b>T</b>		<b>I</b>	<b>S</b>		<b>A</b>		<b>B</b>

$7n + 2$	$20 - 3n$	$5n + 1$	'	$3n - 9$		$4n - 2$	$2n$	$-n - 2$	$10 - n$
<b>I</b>	<b>R</b>	<b>D</b>	'	<b>S</b>		<b>F</b>	<b>A</b>	<b>V</b>	<b>O</b>

$0.5n$	$20 - 3n$	$7n + 2$	$-n$	$3n$		$-n$	$2 - 1.5n$	$12 - 2n$	$3n$
<b>U</b>	<b>R</b>	<b>I</b>	<b>T</b>	<b>E</b>		<b>T</b>	<b>Y</b>	<b>P</b>	<b>E</b>

$10 - n$	$4n - 2$		$2n - 5$	$2n$	$-n$	$3n - 5$	$3n - 9$	?
<b>O</b>	<b>F</b>		<b>M</b>	<b>A</b>	<b>T</b>	<b>H</b>	<b>S</b>	?

$10 - n$	$1.5n + 1$	$n - 3$	-	$2n + 7$	$3n$	$2n + 1$	$20 - 3n$	$2n$	!
<b>O</b>	<b>W</b>	<b>L</b>	-	<b>G</b>	<b>E</b>	<b>B</b>	<b>R</b>	<b>A</b>	!