Arithmetic Sequence	Melanie is starting to train for a swim meet. She begins by swimming 5 laps per day for a week. Each week she plans to increase her number of daily laps by 2.	Make a table.				What's the rule?				
		week 1 2		laps		Common difference (slope) = y-intercept ( $x = 0$ ) = Equation				
							3			
							4			
		1. How many laps per day will she swim during the 15 <sup>th</sup> week of training?	Find the sum of the series	week	Total laps		week	Total laps	Find the sum of the series	
				1			6			
2. How many laps did she swim during 10 weeks of training?	2			7		3. How many laps did she swim during 20 weeks of training?				
	3			8						
	4			9						
		5		10						
Sigma (Σ) Notation	What does that look like in Sigma ( $\Sigma$ ) notation?	formเ รเ	ila for im of	findin a serie	ng the es	Use the formula to answer question #3.				
$\sum_{i=1}^{5} 3i^{i}$		$s_n = n \left( \frac{a_1 + a_n}{2} \right)$ $a_1 =$								
		$a_n = n = -$				(MCC9-12.F.BF.2)				
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35 people go to a party and shake everyone's hand exactly once. How many handshakes occurred?	Μ	lake a ta	ble.	What's the rule?
	# of people	# of handshakes per person	Total # of handshakes	
	1			
	2			Equation
	3			
	4			
	5			
2. If there were 253 handshakes at the party, how many people were there?	Find 3 han occ there	the sum series . How m dshakes ur altoge were 50 at the par	any would ther if people	What does that look like in Sigma (Σ) notation?
Why do we divide by 2 in the formula?	Use answ	the form	nula to tion #3.	Evaluate.
r I. Bell LaGrange High School LaGrange	Georgia		adanted fr	$\sum_{k=3}^{10} 2k + 1$
	<ul> <li>35 people go to a party and shake everyone's hand exactly once. How many handshakes occurred?</li> <li>2. If there were 253 handshakes at the party, how many people were there?</li> <li>Why do we divide by 2 in the formula?</li> </ul>	35 people go to a party and shake everyone's hand exactly once. How many handshakes occurred? 3 4 5 6 2. If there were 253 handshakes at the party, how many people were there? 3 han shan occ there a Why do we divide by 2 in the formula?	35 people go to a party and shake everyone's hand exactly once. How many handshakes occurred?       # of handshakes per person         1       2         3       2         3       3         4       5         5       6         2. If there were 253 handshakes at the party, how many people were there?       Find the sum series occur altoge there were 50 at the party. Now many people were there?         Why do we divide by 2 in the formula?       Use the form answer quest	35 people go to a party and shake everyone's hand exactly once. How many handshakes occurred?       # of people handshakes perperson handshakes       Total # of people handshakes         1       2       2       2         3       2       2       3       2         4       3       2       3       2         2. If there were 253 handshakes at the party, how many people were there?       Find the sum of the series       3         3. How many handshakes would occur altogether if there were 50 people at the party?       Why do we divide by 2 in the formula?       Use the formula to answer question #3.