

Activity 4 Assessment

Working with Linear Patterns

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Determines missing terms in a pattern

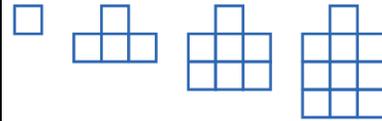
Determine the numbers to complete this pattern.

85, 79, 73, _____, 61, _____

"Every term is 6 less than the previous term. So, I can find the missing terms by subtracting. The pattern is:

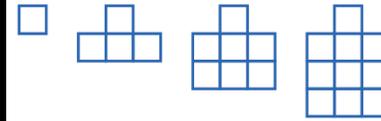
85, 79, 73, 67, 61, 55"

Uses a pattern rule to predict terms far ahead in a pattern



"The pattern rule is $3n + 1$. To determine how many tiles would be in term 50, I substitute 50 for n .
 $3(50) + 1 = 150 + 1$
 $= 151$
 There would be 151 tiles in term 50."

Uses a pattern rule to determine the term number given a term value



"The pattern rule is $3n + 1$. To determine which term has 100 tiles, I need to find a value for n that makes $3n + 1 = 100$.
 I know that $3 \times 33 = 99$, and $99 + 1 = 100$. So, the answer is term 33."

Creates and uses an algebraic pattern rule to model and solve a problem

Maha pays \$20 every month for a gym membership plus \$3 for every class. If Maha pays \$65 one month, how many classes did they attend?

"I can represent this with the expression $3n + 20$ where n is the number of classes. I need to find a value for n so that

$3n + 20 = 65$. I'll try $n = 10$.

$$3(10) + 20 = 30 + 20 \\ = 50$$

This is too small. I'll try $n = 15$.

$$3(15) + 20 = 45 + 20 \\ = 65$$

Maha went to 15 classes that month."

Observations/Documentation