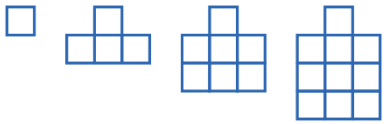
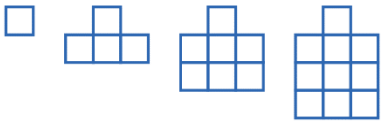
Patterns and Relations

Activity 3 Assessment
Working with Linear Patterns

Working with Linear Patterns			
Determines missing terms in a pattern Determine the numbers to complete this linear 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 initial value is 1 and the constant change is 3. So, 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 $3n + 1$ equal to 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 each class they attend. If Maha attends 15 classes one month, how much will they pay? “I can represent this with the expression $3n + 20$ where n is the number of classes. I substitute 15 for n. $3n + 20 = 3(15) + 20$ $= 45 + 20$ $= 65$ Maha will pay $65.”
Observations/Documentation			