≜Writing The Rule Algebraically@

      Hand small groups of students a card (below). Each card has a beginning number and a rule written on the card. The group getting the card starts with the beginning number as *x* and applies the rule to generate three more terms in the sequence. A spokesperson then tells the class the beginning number and the next three numbers in the sequence. Class members are given time to guess the rule by writing that rule on their calculator and on their paper. The guesser suggests the rule and shows the sequence. The next group then challenges the class in the same manner.

Calculator steps: Press original number, then $\boxed{\text{STO}\blacktriangleright}\boxed{x}\boxed{\text{ENTER}}$. Next, type the rule algebraically for the n$^{\text{th}}$ term (ex. x + 3), then $\boxed{\text{STO}\blacktriangleright}\boxed{x}\boxed{\text{ENTER}}$. Continue pushing $\boxed{\text{ENTER}}$ to generate more terms of the sequence.

Begin with: 1.5 **Rule: *X* + 2**	**Begin with: 10** **Rule: *X* + -2**	**Begin with: ½** **Rule: 3*X***
Begin with: 24 **Rule: ¼*X***	**Begin with: 2** **Rule: *X*²**	**Begin with: 3** **Rule: 2*X***
Begin with: 1.12 **Rule: *X* + 0.03**	**Begin with: 4** **Rule: *X* — 0.25**	**Begin with: 6.45** **Rule: *X* — 0.15**