

Writing The Rule

Hand several students a card. See examples below. Each card has a beginning number and a rule written on the card. The person getting the card starts with the beginning number and applies the rule to generate three more numbers in the sequence. That person then tells the class the beginning number and the next three numbers in the sequence. Class members are given time to guess a rule by writing that rule on their calculator and on their paper. The person with the card then reads the next number in the sequence and gives the class time to change or refine the rule they had originally written. This process continues until someone in the class is ready to guess the rule. The guesser using the teacher's overhead screen types the rule and shows the sequence. Then next person with a card then challenges the class in the same manner.

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

<p>Begin with: 1.5</p> <p>Rule: add 2 to each term</p>	<p>Begin with: 10</p> <p>Rule: add - 2 to each term</p>	<p>Begin with: $\frac{1}{2}$</p> <p>Rule: Multiply each term by 3</p>
<p>Begin with: 24</p> <p>Rule: Multiply each term by $\frac{1}{4}$</p>	<p>Begin with: 2</p> <p>Rule: square each term</p>	<p>Begin with: 3</p> <p>Rule: Multiply each number by 3</p>
<p>Begin with: 1.12</p> <p>Rule: Add 0.03 to each term</p>	<p>Begin with: 4</p> <p>Rule: subtract 0.25 from each term</p>	<p>Begin with: 6.45</p> <p>Rule: subtract 0.15 from each term</p>