

Activity 11 Assessment

Using Code to Generate Linear Patterns

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Executes code that is provided and interprets results

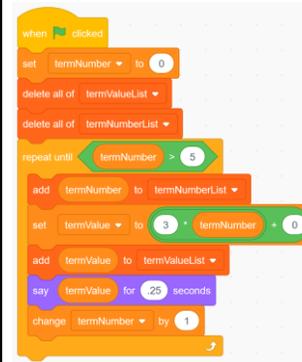
“When I clicked the green flag, the program output the numbers 0, 3, 6, 9, 12, 15 in a list. The terms in this pattern increase by 3 each time.”

Reads and interprets pseudocode, completing or altering as needed

```
clear mypattern[]
number = 0
repeat 10 times
  output number
  add number to mypattern[]
  change number by 3
end repeat
```

“This pseudocode is for a program to output 10 terms of a pattern that starts with 0 and increases by 3 each time. To output a pattern that increases by 4 each time, replace the 3 in the change **number** line to 4.”

Reads and interprets code, completing or altering as needed



“This code will display 6 terms of a pattern that starts at 0 and increases by 3 each time. To display 6 terms of a pattern that starts at 1 and increases by 5 each time, leave the **repeat until** block the same but change the expression in the **set termValue** block to $5 \times \text{termNumber} + 1$.”

Analyses output data to help solve problems

“The output of the code gives me lots of data about the cost to buy different numbers of records. I can see that the price per record drops really quickly to begin with, but then more slowly. To make it worthwhile to pay the high shipping fee, I would buy at least 30 records. After 30, the unit price decrease isn't as good. Since Ty is buying for a business, they will likely find lots of albums to purchase.”

Observations/Documentation