MathFLIX CHALLENGE
Working with Patterns

Study the patterns below and then extend them to find solutions.

1a) Write the next six numbers of each pattern.

      A)   6, 8, 7, 6, 8, 8, 7, 6, 8, 8, 8, 7, ___, ___, ___, ___, ___, ___

      B)   5, 10, 15, 20, 25, ___, ___, ___, ___, ___, ___

1b) Write the next five numbers of each pattern.

      A)   1, 2, 4, 8, 16, 32, ___, ___, ___, ___, ___

      B)   4, 9, 14, 19, 24, ___, ___, ___, ___, ___

1c) Write the next five numbers of each pattern.

      A)   1, 4, 9, 16, 25, 36, ___, ___, ___, ___, ___

      B)   1, 3, 6, 10, 15, ___, ___, ___, ___, ___

2a) Farmer Diane planted several rows of beans in her garden one weekend. When she checked on Monday, 5 plants had sprouted. On Tuesday, she discovered 10 new plants, and on Wednesday, there were 15 new plants. If here beans continue to sprout at this rate, how many new plants will appear on Saturday?

2b) For her birthday, Cathy received a beautiful stamp album and one beautiful stamp from Mexico. Each week, she bought five new stamps to add to her collection. How many stamps did she have after the seventh week?

2c) In the song, The Twelve Days of Christmas, how many gifts are sent on the eighth day?