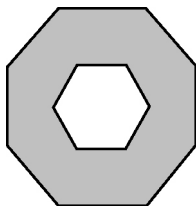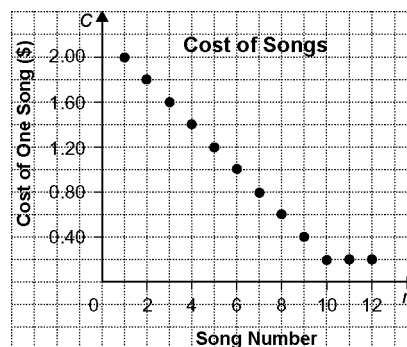# Chapter 10 Gifted and Enrichment Answers

1. The numbers are arranged alphabetically: eight, five, four, nine, one, ...

2. a) 720. Start at 1, multiply the first number by 2, the second number by 3, the third number by 4, the fourth number by 5, and the fifth number by 6.

   b) 21. Two previous numbers add up to the next number.

   c) 31. Two previous numbers add up to the next number.

   d) 17. Add 3 to each number to get the next number.

   e) 12. Add 5 to the first number, subtract 3 from the second number, and repeat.

3. a) Answers may vary. Example: The number of sides of the outer shape is $h + 2$, where h is the number of sides of the inner shape.

   b) The next outer shape in the series will have eight sides and the inner shape will have six sides.

4. a)

Song Number, n	Cost of One Song, C ($)
1	2.00
2	1.80
3	1.60
4	1.40
5	1.20
6	1.00
7	0.80
8	0.60
9	0.40
10	0.20
11	0.20
12	0.20

b) $2.00 - 0.20(n - 1)$, where n is the song number