Grade 5 Chapter 1: Mid-Chapter Review

Answers

1. a) For example, each new array has one more row of chairs at the bottom and one new column than the previous array.

   b)

Array	Number of chairs
1	2
2	6
3	12
4	20
5	30
6	42
7	56

   For example, the pattern rule is to start with 2 and increase by 4, then increase by 2 more each time.

   c) For example, array 1 was 1×2, array 2 was 2×3, array 3 was 3×4, so I think array 9 will be $9 \times 10 = 90$. Or I can extend the t-chart to row 9.

   d) Row 12. I know it is more than row 10, which is $10 \times 11 = 110$, so I try $11 \times 12 = 132$, $12 \times 13 = 156$, so I know it is row 12. Or I can extent the t-chart to row 12.

2. a) 15; 5 b) 20; 30

3. a) 10, 20, 30, 40, 50, 60, 70, 80, 90, 100

   b) 3, 7, 11, 15, 19, 23, 27, 31, 35, 39

4. a) 1, 3, 5, 7, 9, 11, 13, 15, 17, 19

   b) For example, I will make pairs, then count the pairs, then multiply. The pairs make 20, $1 + 19 = 20$, $3 + 17 = 20$, and there are five pairs, so $5 \times 20 = 100$.

5. 40; for example, I will look for groups of 4. There are 2 stacks of 4. There are 4 stacks with 5 hats and 4 stacks with 3 hats. I could borrow a hat from each stack of 5 and give it to each stack of 3 to make 8 more stacks of 4. That's 10 stacks of 4 altogether: $10 \times 4 = 40$.