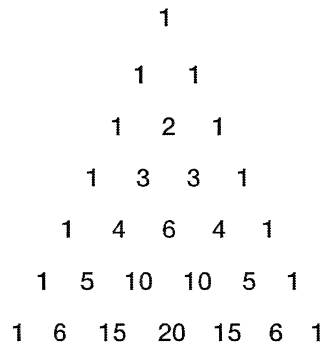


LESSON **4.1** Assignment

Name _____ Date _____

Is There a Pattern Here? Recognizing Patterns and Sequences

Pascal's Triangle is a famous pattern named after the French mathematician and philosopher Blaise Pascal. A portion of the pattern is shown.



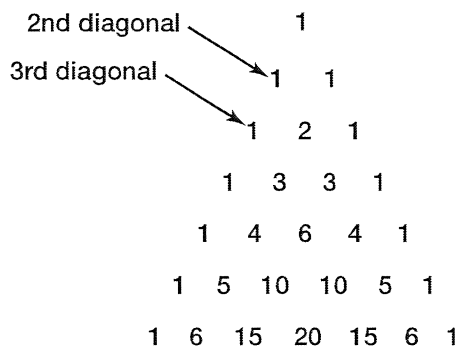
1. Analyze Pascal's Triangle.
 - a. Describe the pattern of the number of terms in each row.

 - b. Describe the pattern within each row.

 - c. Describe the pattern that results from determining the sum of each row.

 - d. Determine the next two rows in Pascal's Triangle. Explain your reasoning.

2. Analyze the diagonals labeled on Pascal's Triangle.



a. Determine the next two terms in the pattern for the second diagonal. Explain how you determined the next two terms.

b. Analyze the third diagonal. Does this have the same pattern as the 2nd diagonal? Determine the next two terms in this sequence. Explain your reasoning.

