


Concept: Pascal's Triangle

Name: _____

COMPUTER COMPONENT

Instructions: In  follow the **Content Menu** path:

Probability > Pascal’s Triangle



Work through all Sub Lessons of the following Lessons **in order**:

- *Pascal's Neighborhood*
- *Pascal's Triangle ... A beginning*
- *Pascal's Triangle ... Row 1*
- *Pascal's Triangle ... Row 2*
- *Pascal's Triangle ... Row 3*
- *Pascal's Triangle ... Row 4*
- *Patterns*
- *Pascal's Neighborhood Revisited*



As you work through the computer exercises, you will be prompted to make notes in your notebook/math journal.

SUMMARY

1. Fill in the appropriate number of paths below.

(a) **Row 1** Theoretical result: _____ path _____ path

(b) **Row 2** Theoretical result: _____ path _____ paths _____ path

(c) **Row 3** Theoretical result: _____ path _____ paths _____ paths _____ path

(d) **Row 4** Theoretical result: _____ path _____ paths _____ paths _____ paths _____ path

2. *Patterns of Pascal’s Triangle*

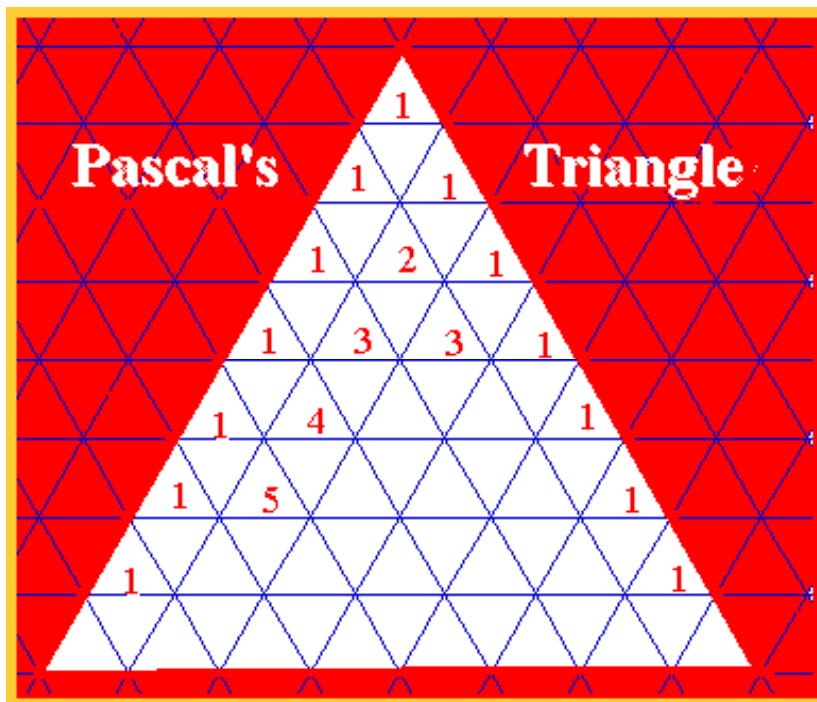
Briefly describe each pattern in your own words.

Pattern #1:

Pattern #2:

Pattern #3:

3. Copy out the 6 rows of Pascal's Triangle that you see on your screen. Can you complete the 7th on your own?



OFF COMPUTER EXERCISES

1. Now, based on your knowledge of the various patterns found in Pascal's triangle, reproduce the first 6 rows of Pascal's Triangle without looking at your SUMMARY notes.

Row 1:

Row 2:

Row 3:

Row 4:

Row 5:

Row 6:

2. Fill in rows 7 and 8 of Pascal's Triangle in the remaining space above.

3. In how many ways can the music note get to the headphones if the music note can only travel on the black lines of the grid?

