Pascal’s Triangle

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Name:

Goal: To understand how Pascal’s Triangle is created and the different patterns that exist with the triangle.

Materials:

4 quarters

Pencil

Blank triangle chart

Procedure:

1. Create the first 5 rows of Pascal’s Triangle using quarters
2. Determine what the top number of the triangle by thinking about how many ways there are to flip no heads or no tails.
3. Create row 1 using 1 quarter to see how many combinations there are to flip a head or flip a tail.
4. Create row 2 using 2 quarters to see how many combinations there are to flip a head or flip a tail.
5. Create row 3 using 3 quarters to see how many combinations there are to flip a head or flip a tail.
6. Create row 4 using 4 quarters to see how many combinations there are to flip a head or flip a tail.
7. Create the next 7 rows of the triangle without using quarters.

6. Determine different patterns that exist in the first five rows to help create the rest of the triangle.

Using Pascal’s Triangle!

What is the probability of tossing a coin 6 times and getting all tails?

What is the probability of tossing a coin 4 times and getting 3 heads and 1 tail?

What is the probability of tossing a coin 7 times and getting 2 heads and 5 tails?