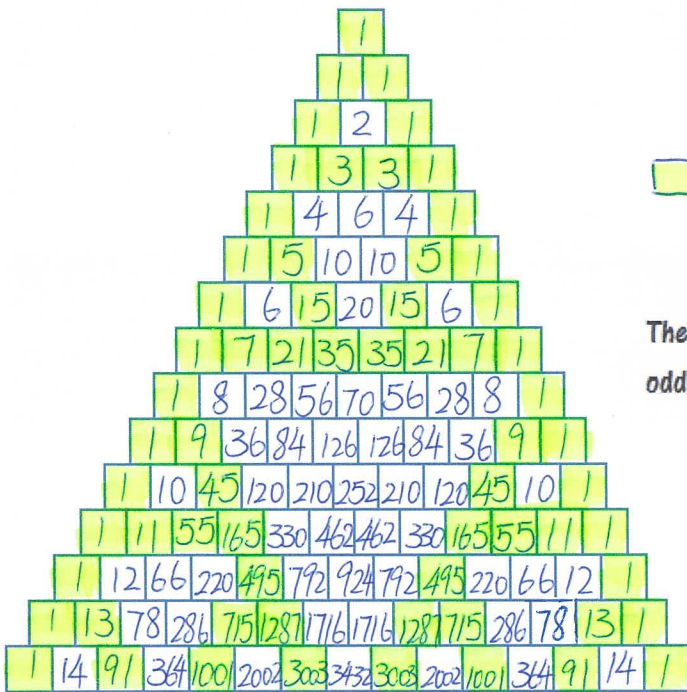


The odd and even number



= odd number

There's a pattern of odd and even number.

Tail and head

Pascal's triangle can tell you how many ways heads and tails can combine.

(H=head, T=tail)

Eg: If a coin is tossed 4 times, the possible combinations are:

HHHH

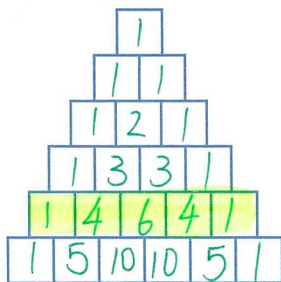
THHH, HTHH, HHTH, HHHT

TTTH, THTH, TTHT, HTHT, HTTH, HHTT

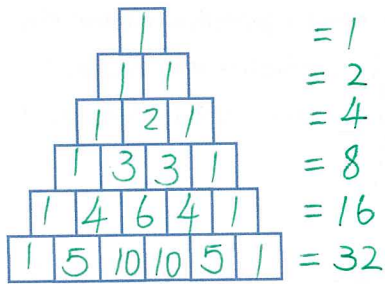
HTTT, THTT, TTHT, TTTT

TTTT

The pattern of it is : 1,4,6,4,1. And that's exactly the numbers of row 5.



The sum of each row



There is a pattern. The sum of each row is doubled.

Eg: $2 \times 2 = 4$ $4 \times 2 = 8$ $8 \times 2 = 16$ $16 \times 2 = 32$

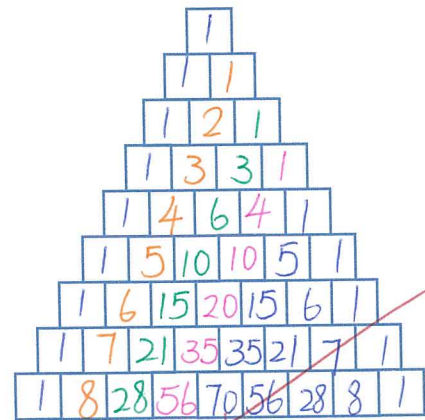
Diagonals (example on the right):

The second diagonal are counting numbers ,
eg: 1,2,3,4, etc.

The third diagonal are triangular numbers

* triangular numbers mean obtained by continued
summation of the natural numbers

Eg : 1,3,6,10,15 because $1+2=3$ $3+3=6$ $6+4=10$ $10+5=15$,etc.

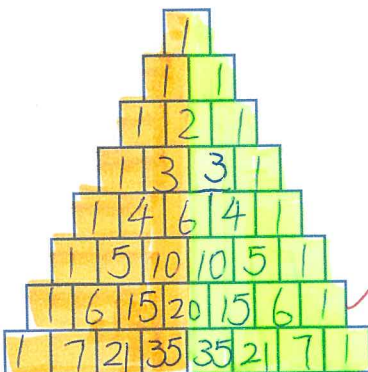


The fourth diagonal are tetrahedral numbers

* tetrahedral numbers are figurate numbers that represents a pyramid with a triangular base and three sides. The first ten tetrahedral numbers are: 1, 4, 10, 20, 35, 56, 84, 120, 165, 220

Symmetrical

The numbers of the triangle are symmetrical. The number on the left side are same as the one on right side.



Reflection:

I think this book is easy understanding. It use simple words to explain everything. At first, I think this set of number must be very boring. But after reading these detail explanation, I found this triangle useful and interesting. I have surf on the internet for further information after reading the book because I am interest in this topic! I recommend this book to others because it is funny and it won't be boring. It can also extend our mathematical knowledge.

Interesting discovery!