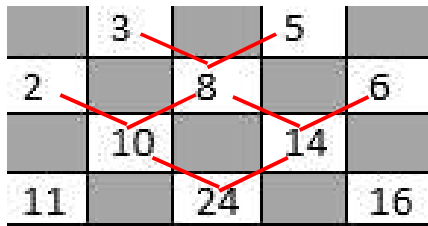


Pascal's triangle

You can calculate the numbers in Pascal's triangle by adding the two top numbers together to get the number below.

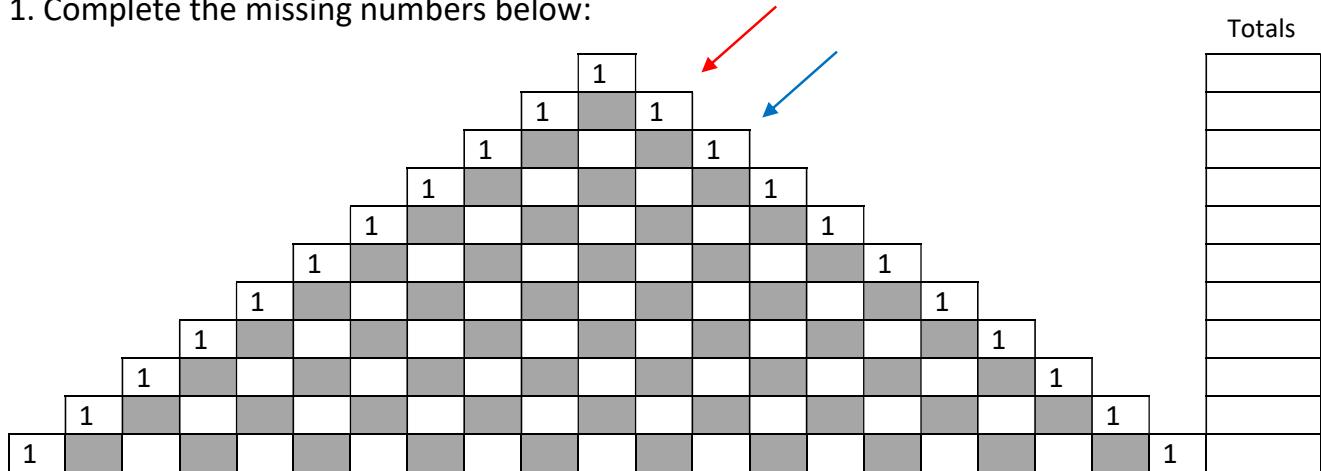
e.g.



Notice that

- $3 + 5 = 8$
- $2 + 8 = 10$
- $8 + 6 = 14$
- $10 + 14 = 24$

1. Complete the missing numbers below:



2. Complete these rows from this triangle below:

11

121

.....

.....

3. Describe the pattern formed:

.....

2. Now calculate each horizontal sum (going across) and write your totals.

3. Describe the pattern formed by these totals:

.....

4. The first arrow (red) shows a diagonal line of terms. Write these numbers down in order:

.....

5. Describe the number pattern made by these numbers:

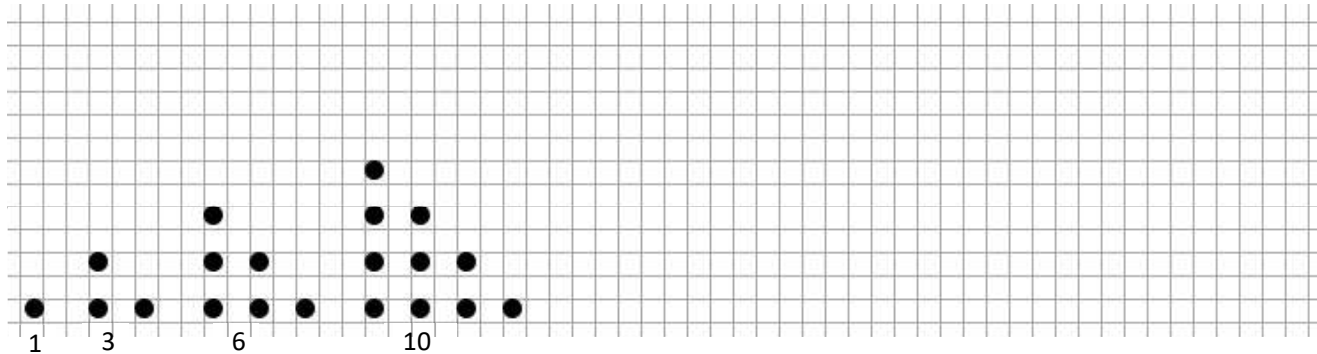
.....

6. The second arrow (blue) shows another diagonal line of terms. Write these numbers down in order:

.....

This pattern is known as the **triangular number pattern**. Its terms can be shown as dot triangles.

7. Complete the next two dot patterns below and write the number of dots underneath:



8. Here are some parts of Pascal's triangle, complete the missing numbers:

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