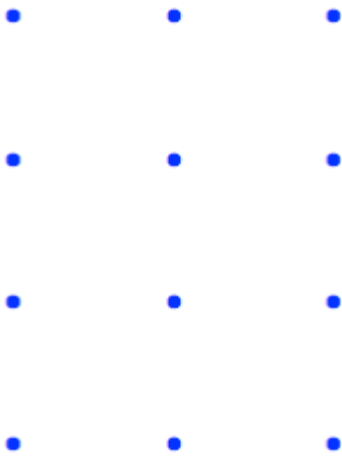


February 29th



There are 12 dots.

For each triangle we need to choose 3.

The number of ways to choose 3 objects from 12 =

$${}^{12}C_3 = 220 \quad (\text{This is } 12! \div (3! \times 9!))$$

BUT.....

We have to discount all of the combinations where the 3 points are collinear (i.e are in a line and don't form a triangle)

There are 4 horizontally

There are 6 vertically

There are 4 diagonally

$$220 - 14 = 206$$

Therefore there are **206** possible triangles