

# H. Geometry – Chapter 2 – Definition Sheet

## Section 2.3

Mathematical Model

- using mathematics to simulate situations or problems

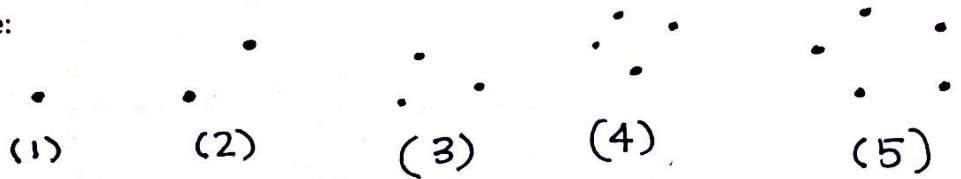
Ex: graphs, pictures, equations...

Investigation (pg.108)

Use mathematical Modeling to show this.

Each of the 30 people at a party shook hands with everyone else. How many handshakes were there altogether?

Picture:



|            |   |   |   |    |    |                    |       |
|------------|---|---|---|----|----|--------------------|-------|
| People     | 1 | 2 | 3 | 4  | 5  | $n$                | 30    |
| Handshakes | 0 | 1 | 3 | 6  | 10 | $\frac{n(n-1)}{2}$ | 435   |
| double:    | 0 | 2 | 6 | 12 | 20 |                    |       |
| factors:   | 1 | 2 | 3 | 4  | 5  | $n$                | $n+1$ |