

Handshakes

Directions: Answer the questions below using the given scenario.

In some countries it is customary at business meetings to shake hands with everybody in the meeting. If there are 2 people there is 1 handshake, if there are 3 people there are 3 handshakes and so on.

1. How many handshakes are there for 4 people?

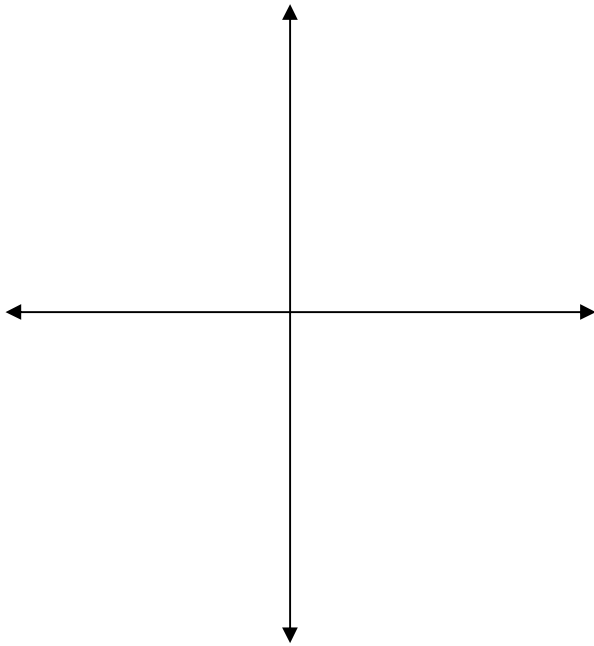
Hint: it may be helpful to find a group of 4 and shake hands with everyone ☺.

2. Complete the table.

<u>Number of People</u>	<u>Number of Handshakes</u>
2	
3	
4	
5	
6	
7	
8	
9	
10	

3. Plot the points on a Cartesian coordinate plane with the number of people on the x-axis and the number of handshakes on the y-axis.

(Do not connect the points!)



4. What do you notice about the graph?

5. Write a formula for the number of handshakes, H , in terms of the number of people, n .