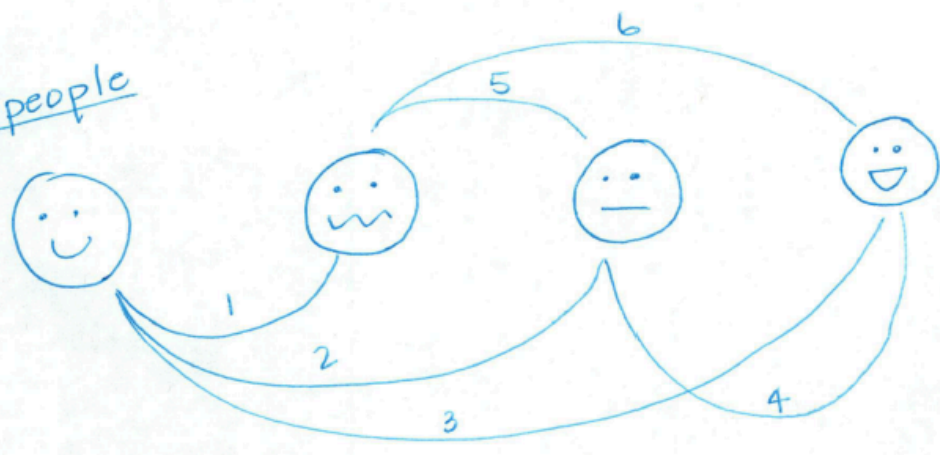


# Visual Representation

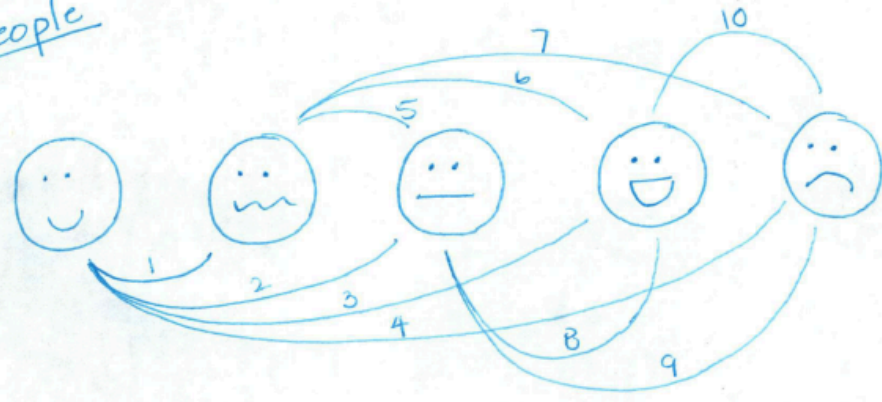
3 people



4 people



5 people



# of people

# of handshakes

3  
4  
5  
6  
7  
8  
9  
10

3  
6  
10  
15  
21  
28  
36  
45

$$\text{Equation} = \frac{n(n-1)}{2}$$

$n$  = # of people

Multiply the total number of people by everyone minus yourself. That counts each handshake twice so you divide by two.

$$\frac{26(26-1)}{2} = 325$$

## Factorial

26 total

$$25 + 24 + 23 + 22 + 21 + 20 + 19 + 18 + 17 + 16 + 15 + 14 + 13 + 12 + 11 + 10 + 9 + 8 + 7 + 6 + 5 + 4 + 3 + 2 + 1 = 325$$