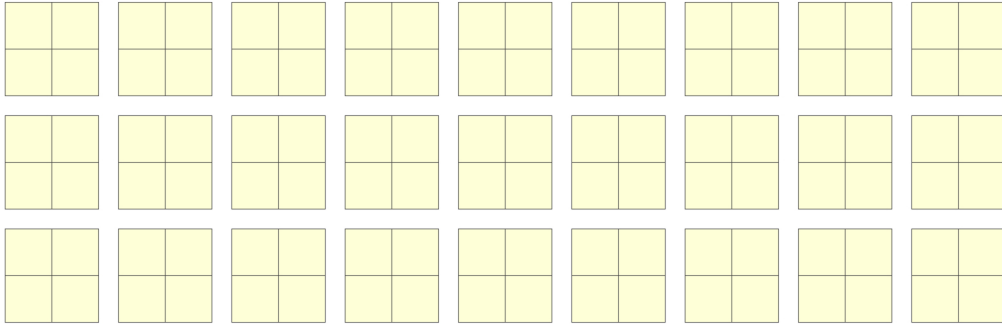


1

A 2x2 grid. **Shade 2 squares.**

If rotations count as the same, how many different patterns are there?

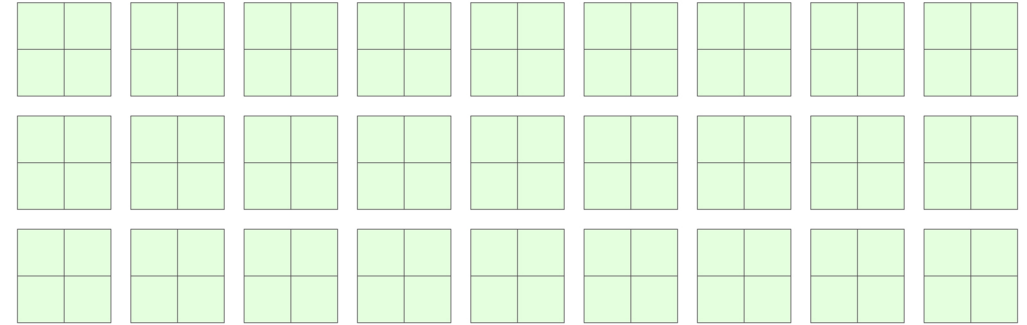


Answer:

2

A 2x2 grid. **Shade 3 squares.**

If rotations count as the same, how many different patterns are there?

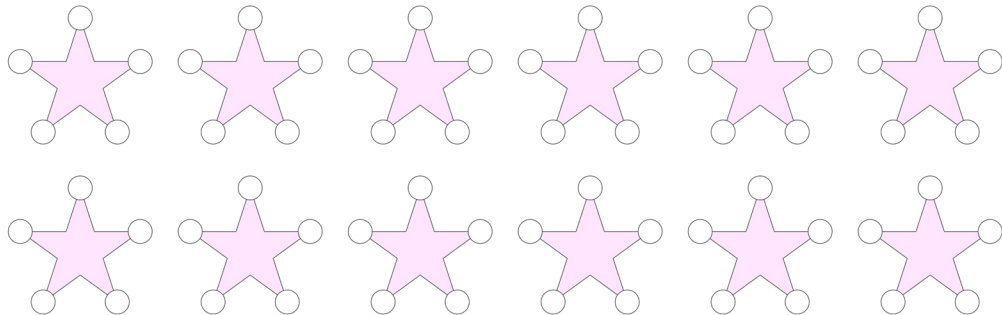


Answer:

3

A 5-point star. **Mark 2 tips.**

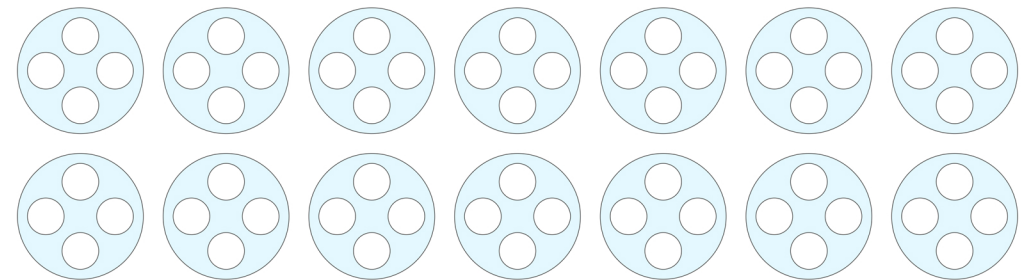
If rotations count as the same, how many different patterns are there?



Answer:

4

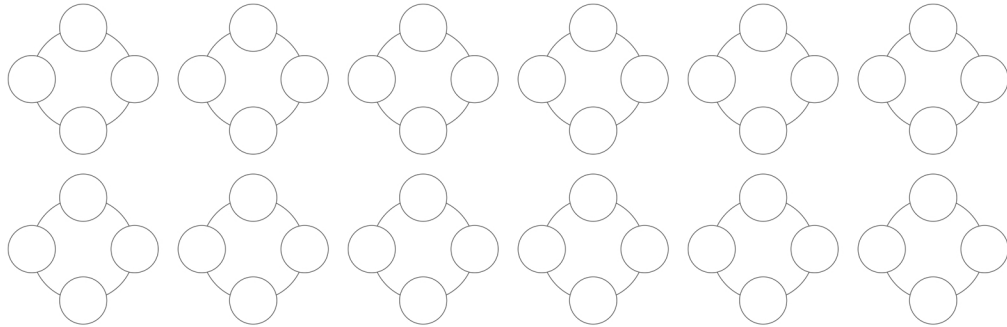
Put **2 plates of one colour** and **2 of another colour** on a round table with 4 seats. Two arrangements are the same if turning the table makes them match. How many different arrangements are there?



Answer:

5

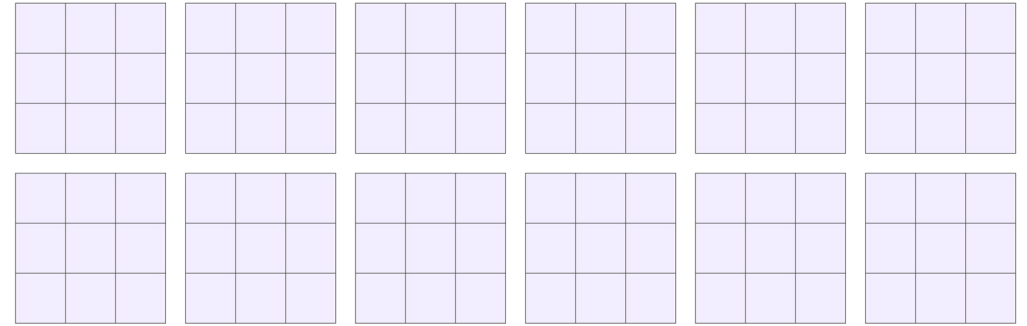
A bracelet has 4 beads: **2 beads of one colour** and **2 of another colour**.
If rotations **and mirror flips** count as the same, how many different bracelets are there?



Answer:

6

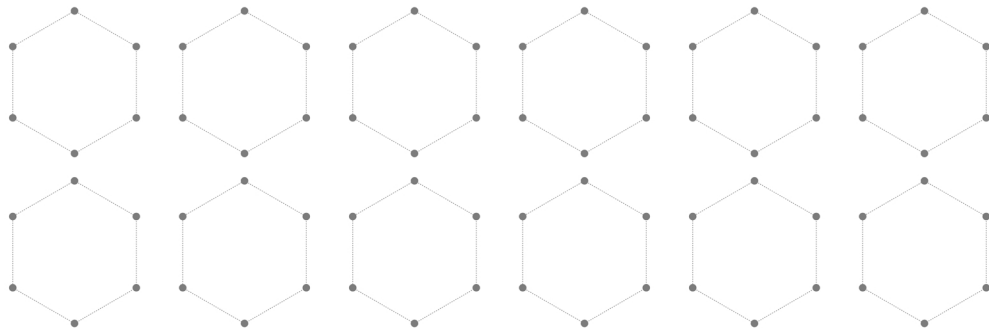
A 3×3 noughts-and-crosses grid. **Place one X**. If rotations **and mirror flips** count as the same, how many different first moves are there?



Answer:

7

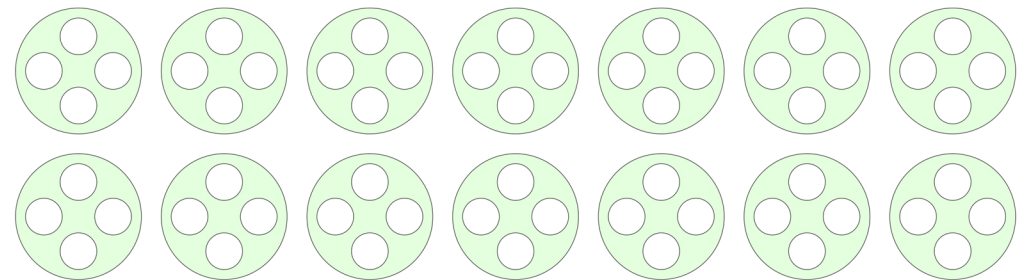
A regular hexagon. **Connect 2 vertices**. If rotations count as the same, how many different patterns are there?



Answer:

8

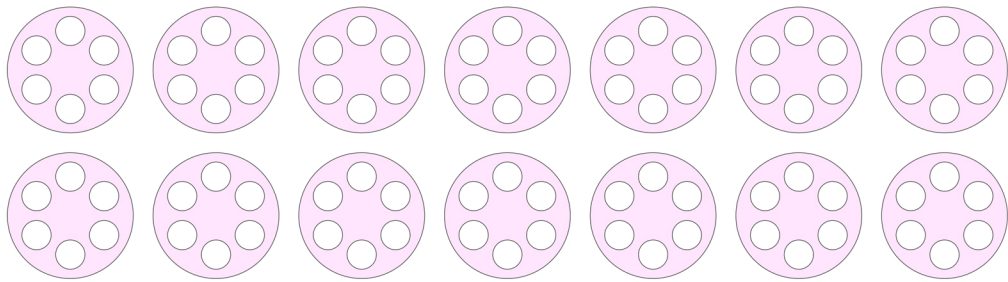
Put **4 different plates** on a round table with 4 seats. Two arrangements are the same if turning the table makes them match.
How many different ways are there?



Answer:

9

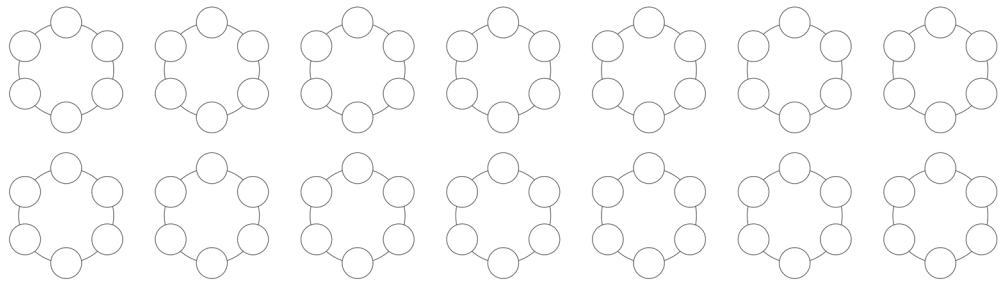
Put **3 plates of one colour** and **3 of another colour** on a round table with 6 seats. Two arrangements are the same if turning the table makes them match. How many different arrangements are there?



Answer:

10

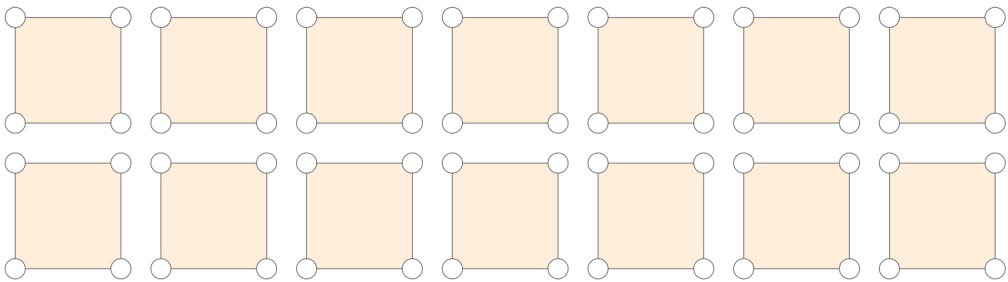
A bracelet has 6 beads: **3 beads of one colour** and **3 of another colour**. If rotations **and mirror flips** count as the same, how many different bracelets are there?



Answer:

11

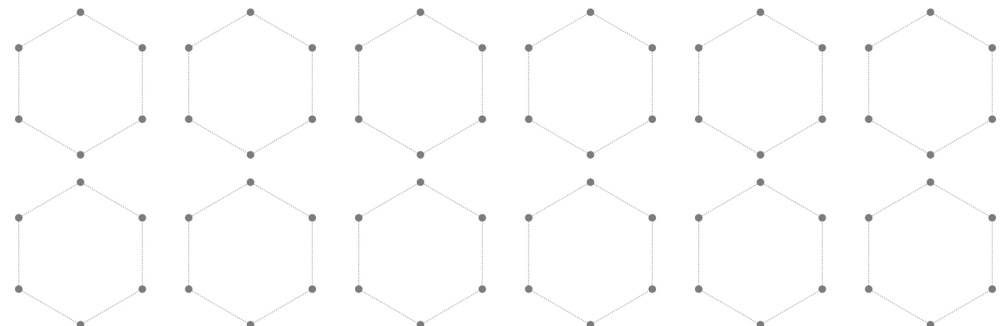
A square has a bead at each corner. Each bead can be **one colour** OR **another colour**. Two colourings are the same if you can match them by rotating or flipping the square. How many different colourings are there?



Answer:

12

A regular hexagon has 6 vertices. **Join 3 vertices to make a triangle**. If rotations count as the same, how many different triangles can you make?



Answer:

1. 2
2. 1
3. 2
4. 2
5. 2
6. 3
7. 3
8. 6
9. 4
10. 3
11. 6
12. 4