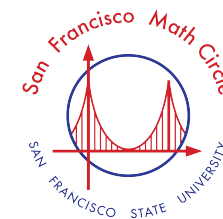


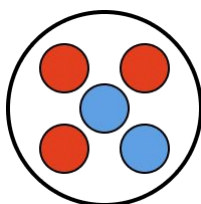


Beat the Odds



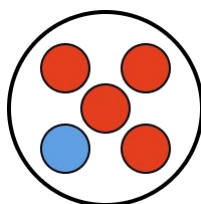
There are **5 piles** of chips, and each pile has **5 chips**. Each chip is either **Blue** or **Red**. If a pile has more blue chips than red chips, then blue wins that pile, and vice-versa.

In the example below, there are 15 total red chips, and 10 total blue chips. Red wins 4 of the 5 piles, and blue wins 1 pile:



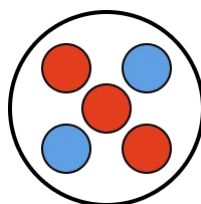
B	R
2	3

Red wins



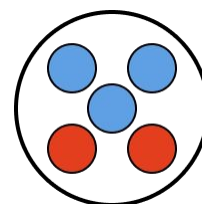
B	R
1	4

Red wins



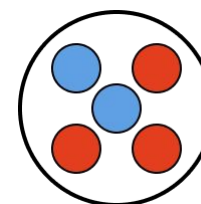
B	R
2	3

Red wins



B	R
3	2

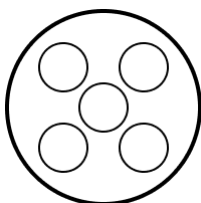
Blue wins



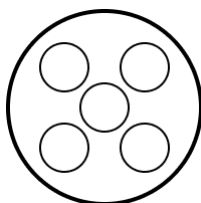
B	R
2	3

Red wins

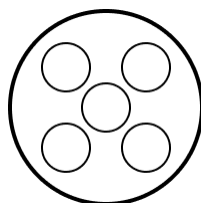
Can you **regroup** these 25 chips so that **blue wins more piles than red**? (Remember, 15 of these chips are red, and 10 are blue.)



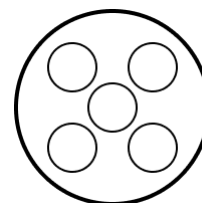
B	R



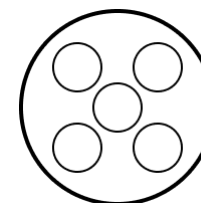
B	R



B	R



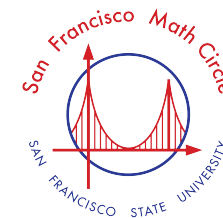
B	R



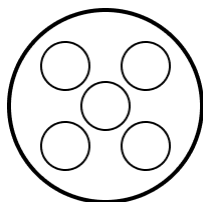
B	R



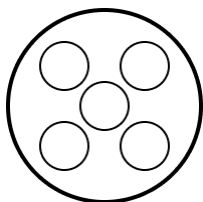
Beat the Odds



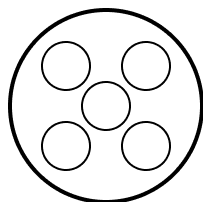
Can you still group the chips so that blue wins more piles than red if there are **16 red chips** and **9 blue chips**?



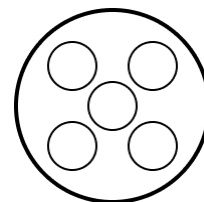
B	R



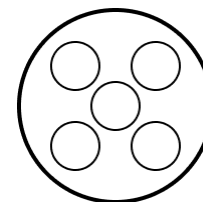
B	R



B	R

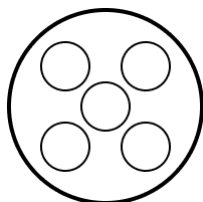


B	R

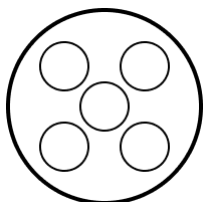


B	R

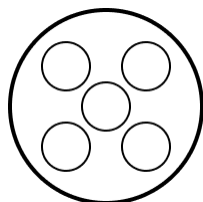
What if there are **17 red chips** and **8 blue chips**?



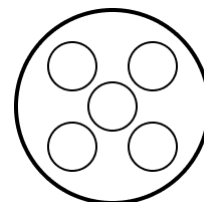
B	R



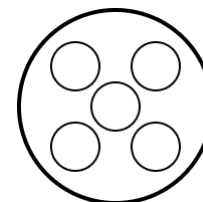
B	R



B	R



B	R



B	R

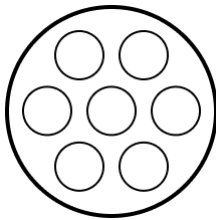
What is the **smallest** number of blue chips you need so that it's still possible to group the chips so blue wins more piles than red?



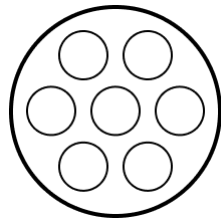
Beat the Odds



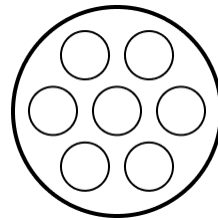
What is the smallest number of blue chips you need so that it's still possible to group the chips so blue wins more piles than red if there are **5 piles** of chips with **7 chips each**?



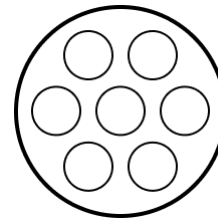
B	R



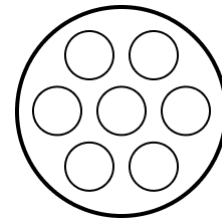
B	R



B	R

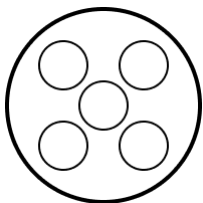


B	R

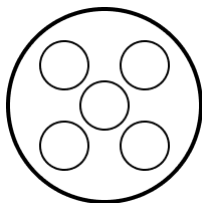


B	R

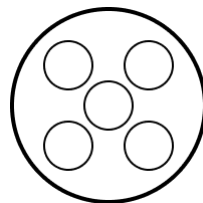
What if there are **7 piles** with **5 chips each**?



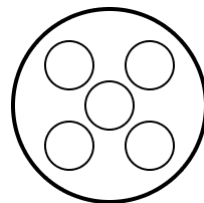
B	R



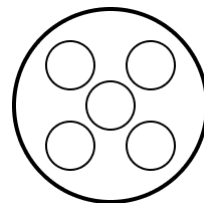
B	R



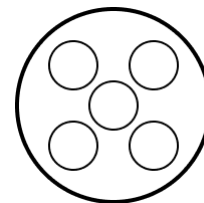
B	R



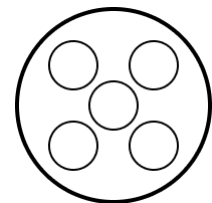
B	R



B	R



B	R



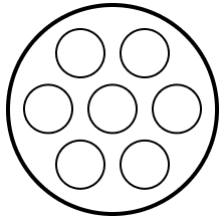
B	R



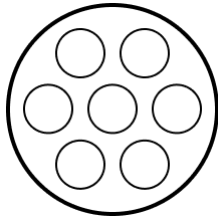
Beat the Odds



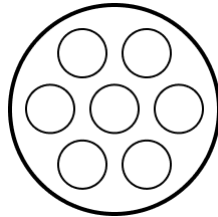
What if there are **7 piles** with **7 chips** each?



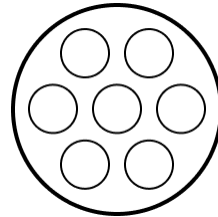
B	R



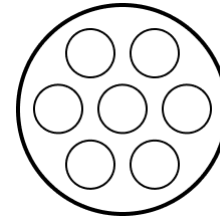
B	R



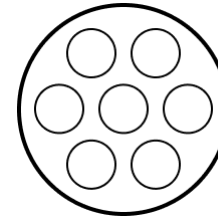
B	R



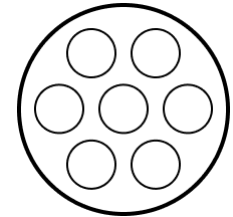
B	R



B	R



B	R



B	R