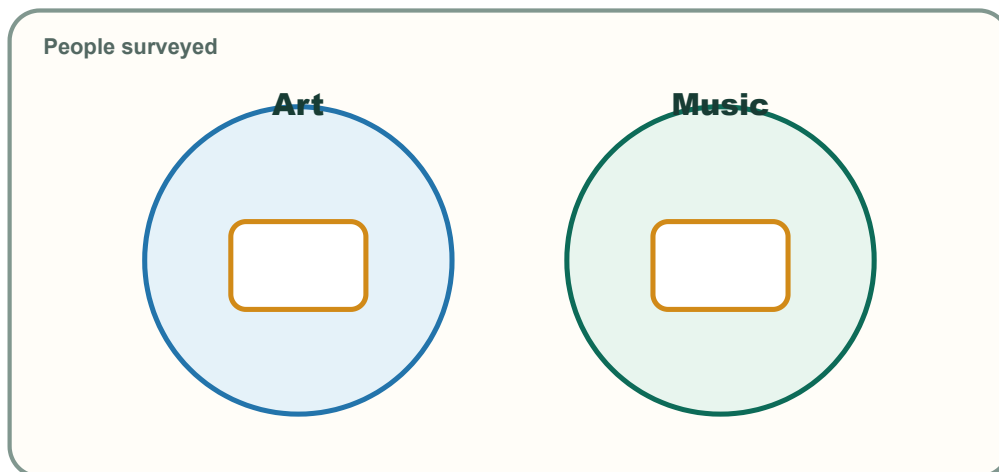


Part A · Separate circles

Name _____ Date _____

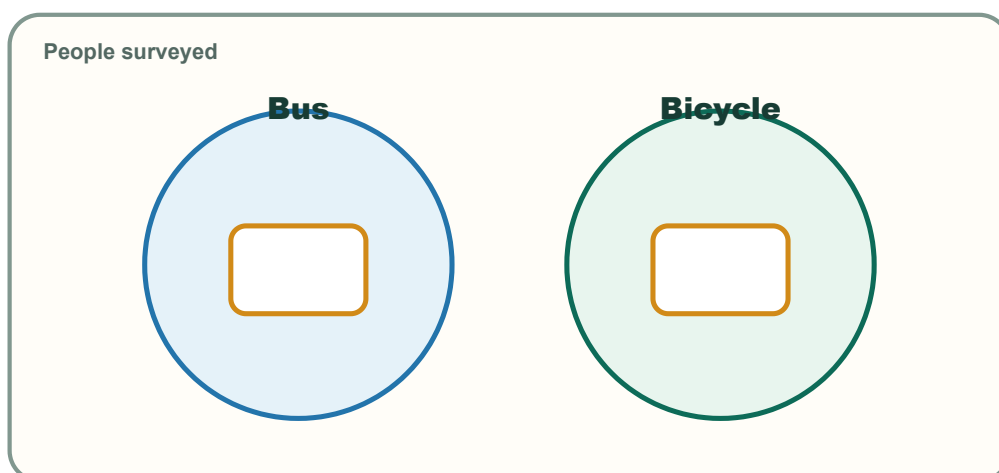
Method: Read each sentence. Write each number inside its labelled circle. Because the circles are separate, the overlap is zero.

- 1** In a class survey, 9 students chose Art and 7 students chose Music. Nobody chose both activities.



How many people are inside at least one circle? _____

- 2** Twelve students travel by bus and 5 travel by bicycle. No student is in both travel groups.

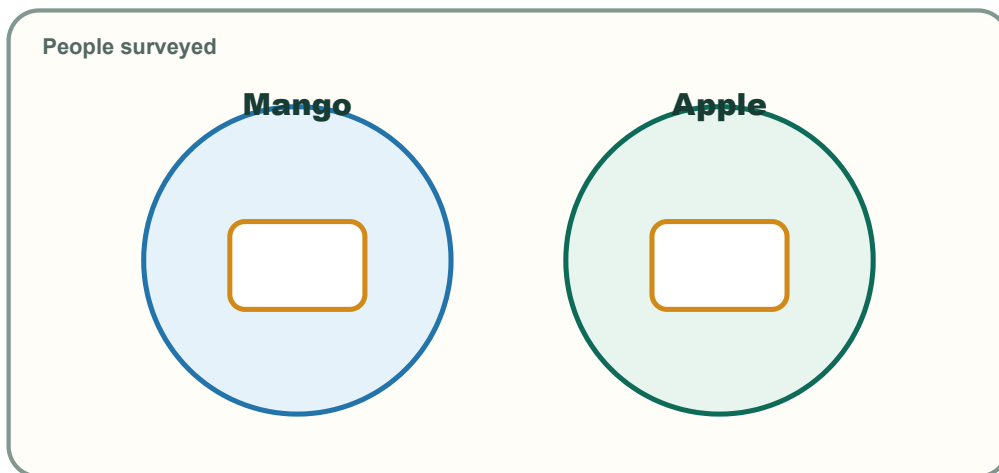


How many people are inside at least one circle? _____

Part A · Separate circles

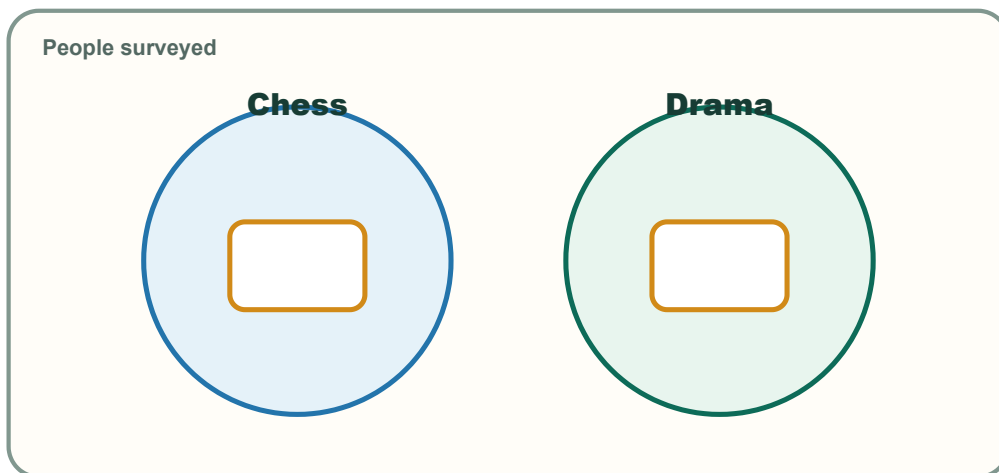
Method: Read each sentence. Write each number inside its labelled circle. Because the circles are separate, the overlap is zero.

- 3 Eight people selected mango and 11 selected apple. Nobody selected both fruits.



How many people are inside at least one circle? _____

- 4 Six students attend Chess Club and 10 attend Drama Club. The clubs have no students in common.

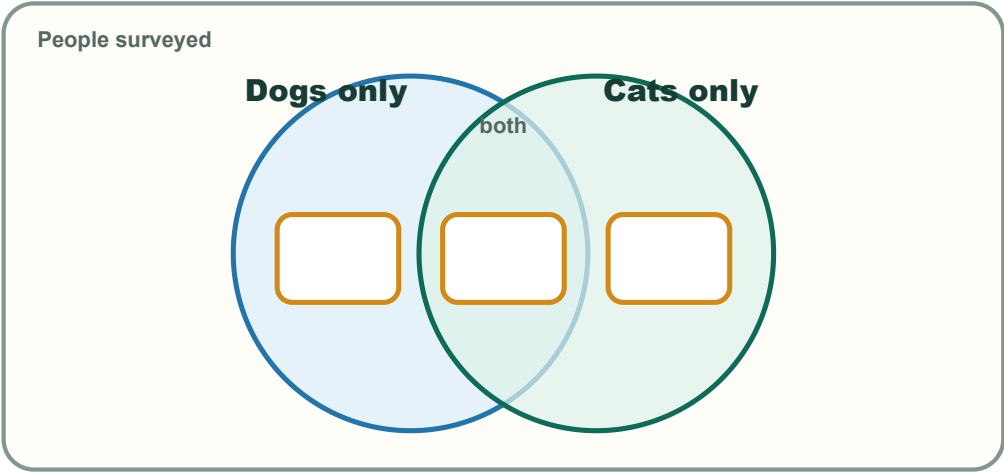


How many people are inside at least one circle? _____

Part B · Only, both, only

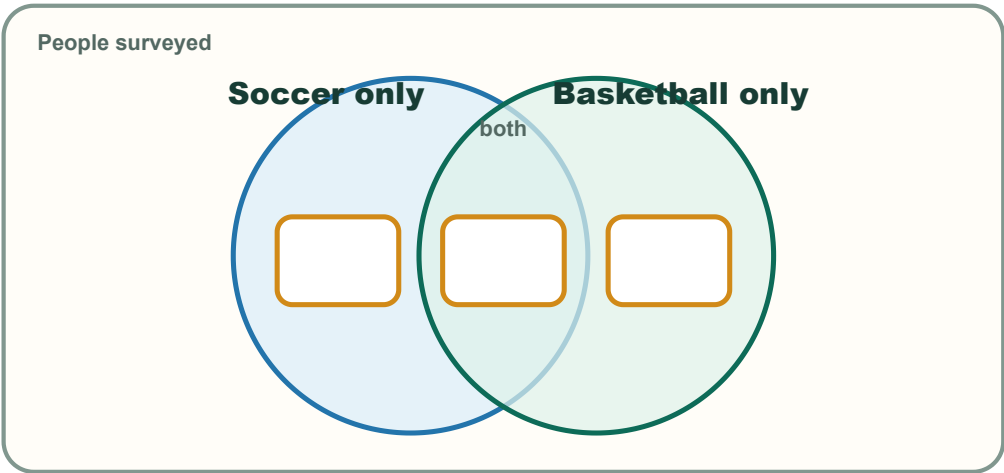
Method: Place each value in the correct region: left only, the overlap for both, and right only.

5 Eight students prefer dogs only, 6 prefer cats only, and 5 like both dogs and cats.



How many people are inside at least one circle? _____

6 Eleven students play soccer only, 7 play basketball only, and 4 play both sports.

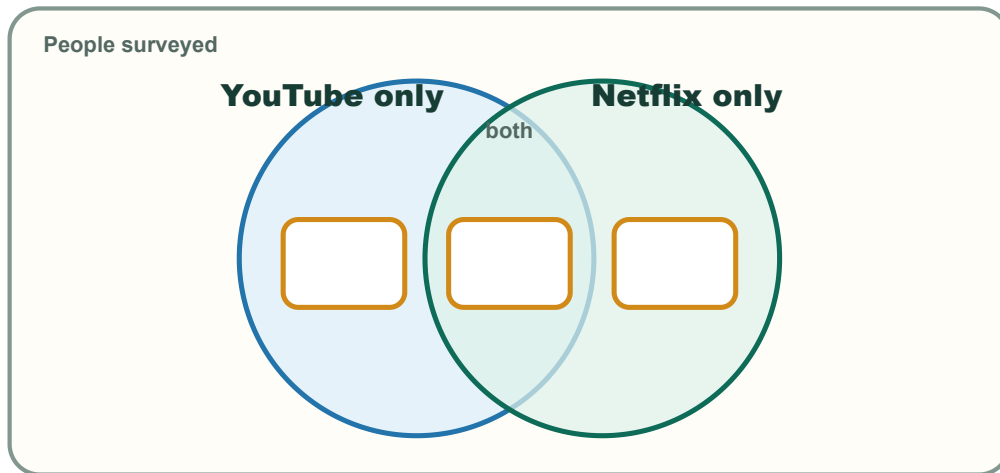


How many people are inside at least one circle? _____

Part B · Only, both, only

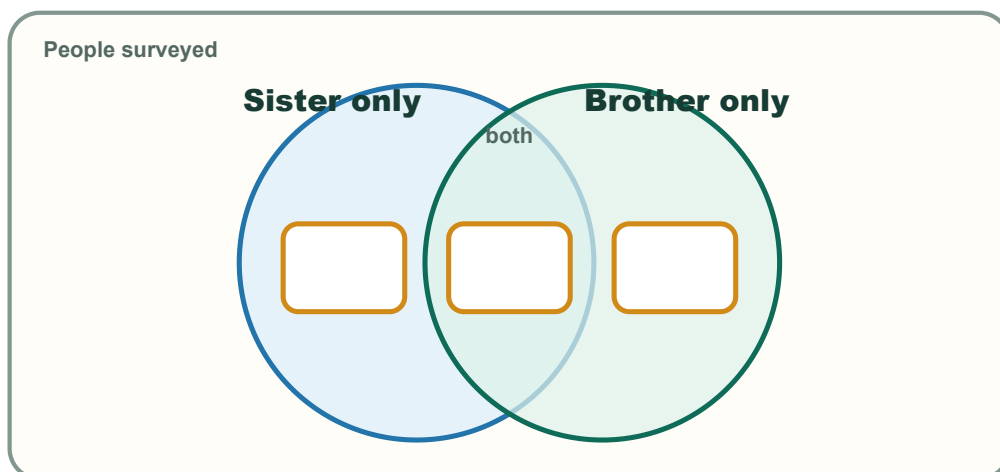
Method: Place each value in the correct region: left only, the overlap for both, and right only.

- 7** Nine students use YouTube only, 8 use Netflix only, and 6 use both services.



How many people are inside at least one circle? _____

- 8** Seven students have a sister only, 5 have a brother only, and 9 have both a sister and a brother.

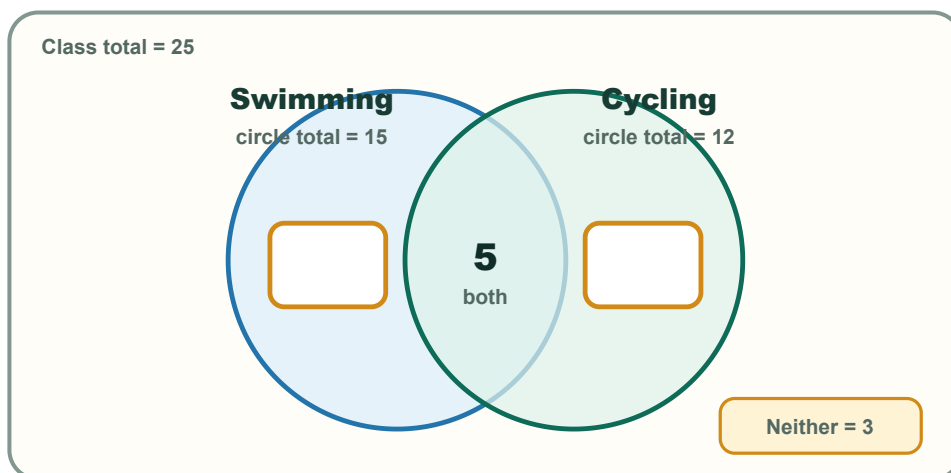


How many people are inside at least one circle? _____

Part C · Find the two only regions

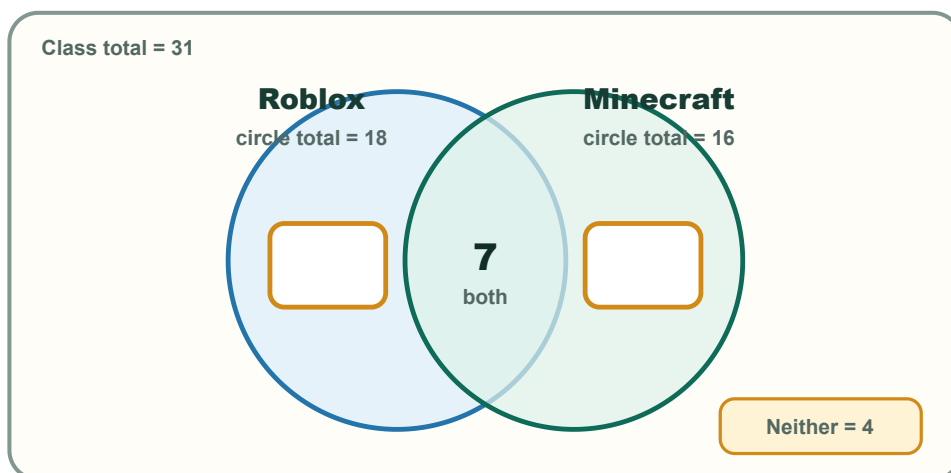
Method: The overlap is already supplied. Subtract it from each circle total, then write the two only values in the diagram.

- 9 Twenty-five students were surveyed. Fifteen swim, 12 cycle, 5 do both activities, and 3 do neither.



How many people are inside at least one circle? _____

- 10 Thirty-one students were surveyed. Eighteen play Roblox, 16 play Minecraft, 7 play both games, and 4 play neither.

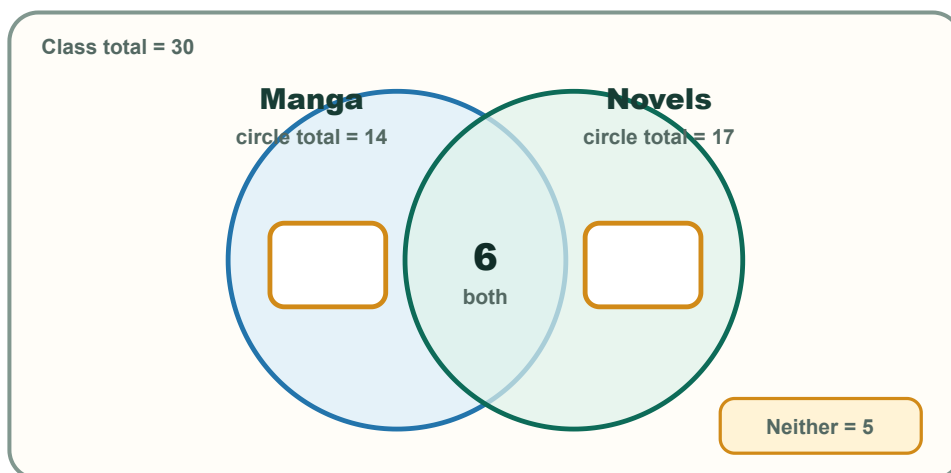


How many people are inside at least one circle? _____

Part C • Find the two only regions

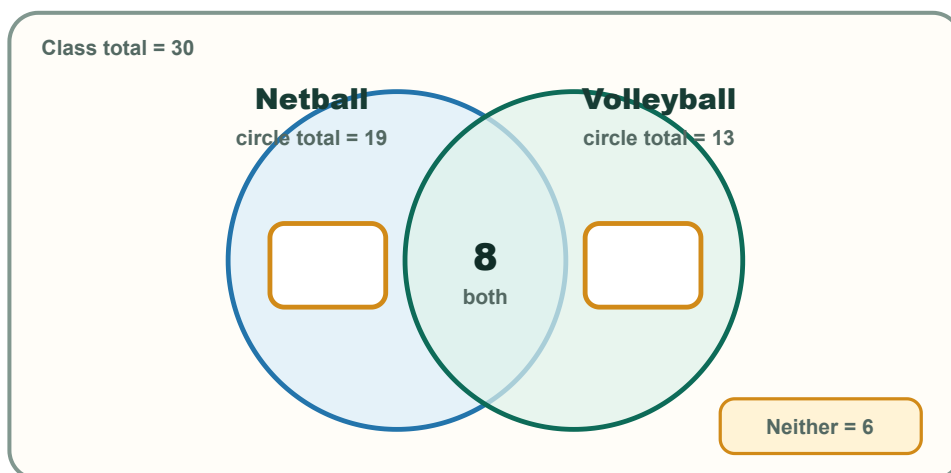
Method: The overlap is already supplied. Subtract it from each circle total, then write the two only values in the diagram.

- 11** Thirty students were surveyed. Fourteen read manga, 17 read novels, 6 read both, and 5 read neither.



How many people are inside at least one circle? _____

- 12** Thirty students were surveyed. Nineteen play netball, 13 play volleyball, 8 play both sports, and 6 play neither.



How many people are inside at least one circle? _____

Answer key

Part A

Place each stated number in its separate circle. Both = 0.

Part B

Copy the only values into the side regions and the both value into the overlap.

Part C

Left only = left total – both. Right only = right total – both.

Q	Sets	Left only	Both	Right only	Inside either circle
1	Art / Music	9	0	7	16
2	Bus / Bicycle	12	0	5	17
3	Mango / Apple	8	0	11	19
4	Chess / Drama	6	0	10	16
5	Dogs / Cats	8	5	6	19
6	Soccer / Basketball	11	4	7	22
7	YouTube / Netflix	9	6	8	23
8	Sister / Brother	7	9	5	21
9	Swimming / Cycling	10	5	7	22
10	Roblox / Minecraft	11	7	9	27
11	Manga / Novels	8	6	11	25
12	Netball / Volleyball	11	8	5	24

This worksheet contains original MathsTran questions and diagrams. It is designed to reinforce the same broad Venn-diagram skills as the interactive Year 8 unit without reproducing third-party assessment wording.