

1

A dark drawer has **4 green socks** and **4 red socks**.

What is **the smallest number** of socks you must take to be sure you have a **matching pair**?



Answer:

2

Same drawer: **4 green** and **4 red socks**.

What is the **smallest number** of socks you must take to be sure you have **two red socks**?



Answer:

3

Now the drawer has **4 green, 4 red, and 4 blue** socks.
What is **the smallest number** of socks you must take to be
sure you have a **matching pair**?



Answer:

4

Same drawer: **4 green, 4 red, and 4 blue** socks.
What is **the smallest number** of socks you must take to be
sure you can make **two matching pairs**?

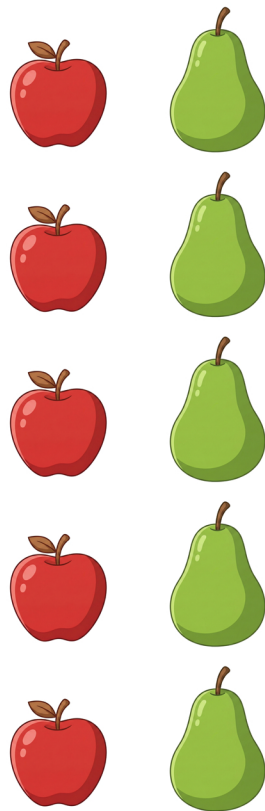


Answer:

5

A bowl has **5 apples** and **5 pears**.

What is **the smallest number** of fruits you must pick to be sure you get **at least one apple**?



Answer:

6

A purse has **three 5p** coins, **two 10p** coins, and **two 20p** coins.

What is **the smallest number** of coins you must take to be sure you have **at least 30p**?

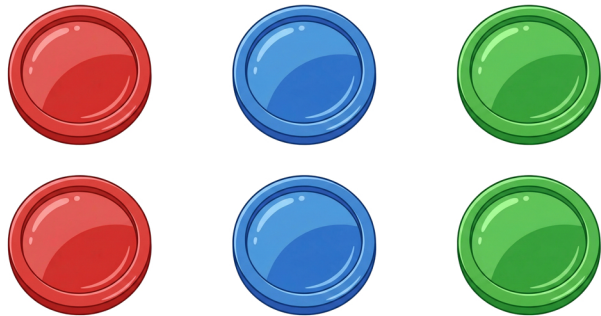


Answer:

7 (optional)

A bag has **2 red**, **2 blue**, and **2 green** counters.

What is **the smallest number** you must take to be sure you have **at least one of each colour**?

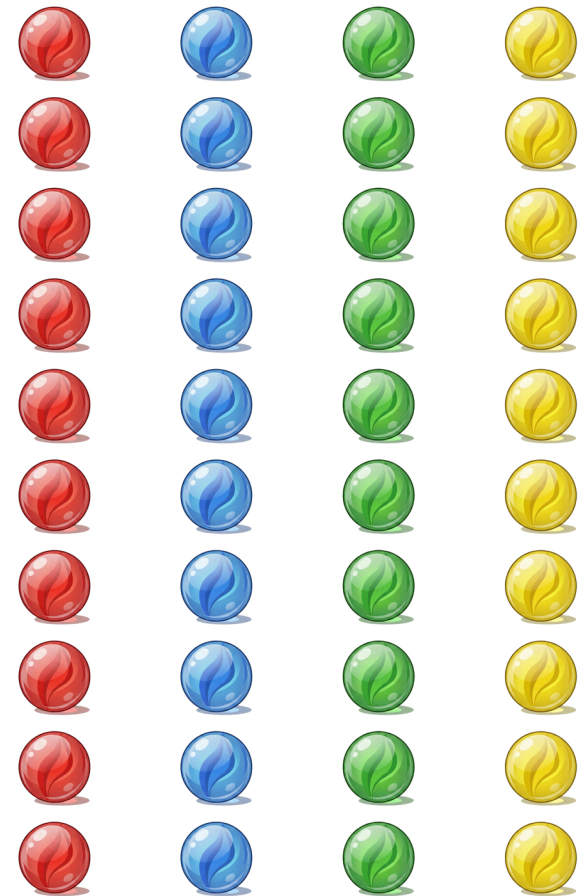


Answer:

8

A bag has marbles in **4 colours** (red, blue, green, yellow), with at least 10 of each colour.

What is **the smallest number** you must take to be sure you have **3 marbles of the same colour**?



Answer:

9

Can you be sure that there are **two people** born **in the same month** (year is not important) **in this room** right now?

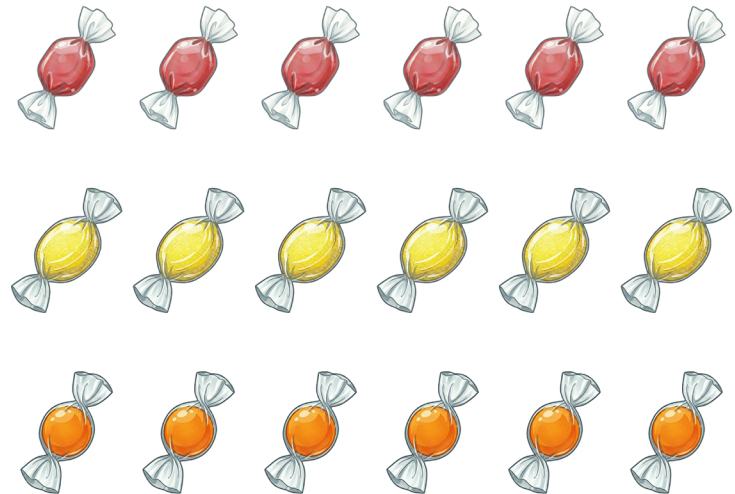
To answer, solve:

What is **the smallest number** of people that must be in a room to be sure that **at least two** were born **in the same month**?

Answer:

10 (optional)

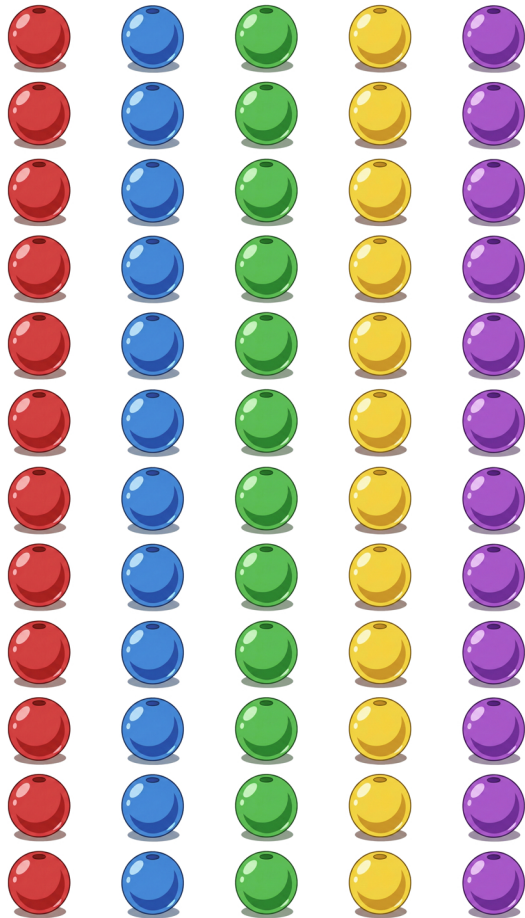
A bag has **6 strawberry**, **6 lemon**, and **6 orange** sweets.
What is **the smallest number** you must take to be sure you have **at least 5 sweets of the same flavour**?



Answer:

11 (optional)

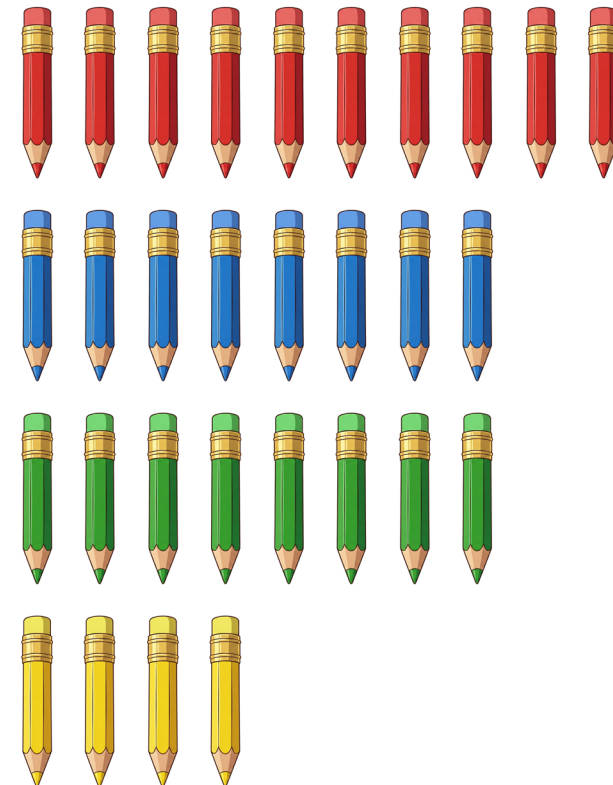
A tub has beads in **5 colours**, with plenty of each colour.
What is **the smallest number** you must take to be sure you have **4 beads of the same colour**?



Answer:

12

A box has **10 red**, **8 blue**, **8 green**, and **4 yellow** coloured pencils.
What is **the smallest number** you must take to be sure you have **at least one of each** colour?



Answer:

13

A bag contains **3 pairs** of **black** gloves and **3 pairs** of **grey** gloves, all mixed up. You cannot tell colour, left, or right by touch.

What is **the smallest number** of gloves you must take to be sure you have a **matching pair** (same colour, one left and one right)?

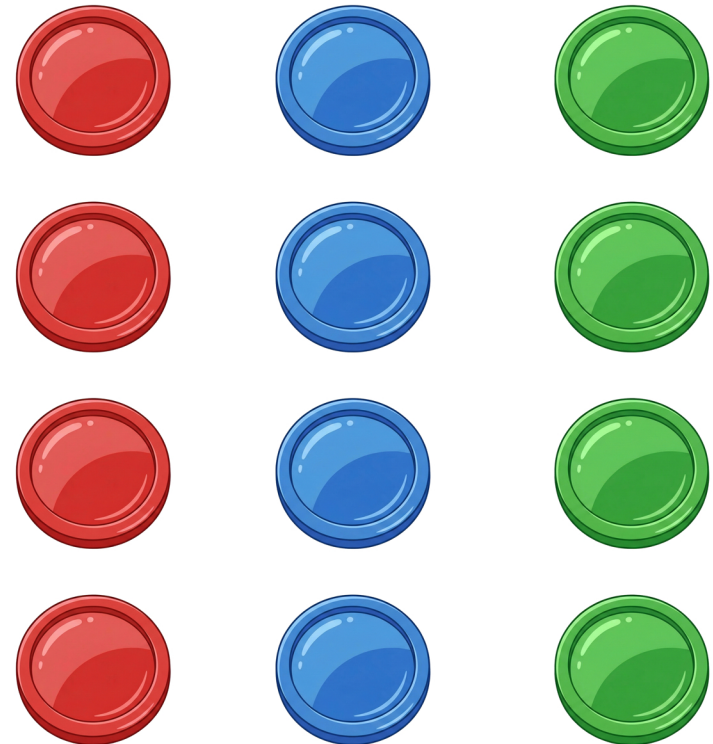


Answer:

14 (optional)

A bag has **4 red**, **4 blue**, and **4 green** counters.

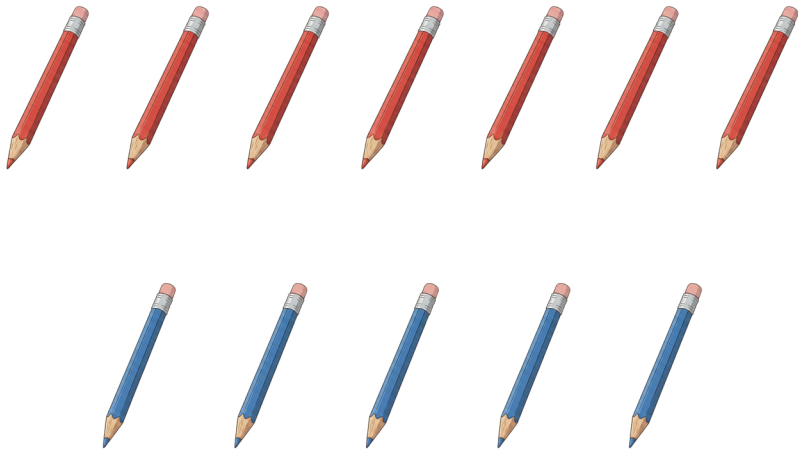
What is **the smallest number** you must take to be sure you have **at least 2 of each colour**?



Answer:

15

A pencil pot has **7 red** pencils and **5 blue** pencils.
What is **the smallest number** you must take to be sure you have **at least 2 red and at least 3 blue**?



Answer:

16

In a cupboard there are **8 strawberry** jam jars, **7 raspberry**, and **5 cherry**. All jars feel the same in the dark.
You carry some jars away without looking.
What is **the largest number** of jars you can take and still be sure that **at least 4 jars of one** flavour and **at least 3 jars of a different** flavour are left?



Answer:

Answers:

1. 3
2. 6
3. 4
4. 6
5. 6
6. 5
7. 5
8. 9
9. 13
10. 13
11. 16
12. 27
13. 7
14. 10
15. 10
16. 7