RECAP…

Factor – goes into!

E.g. 5 goes into 25 therefore is a FACTOR of 25

Multiple – lots of!

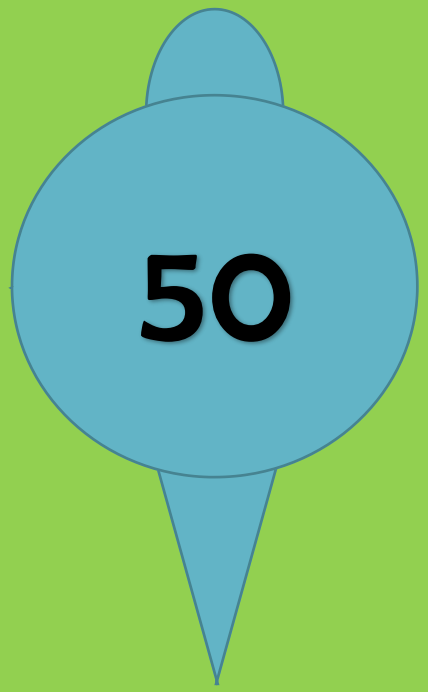
e.g. 9 is in the 3x table and therefore is a MULTIPLE of 3.

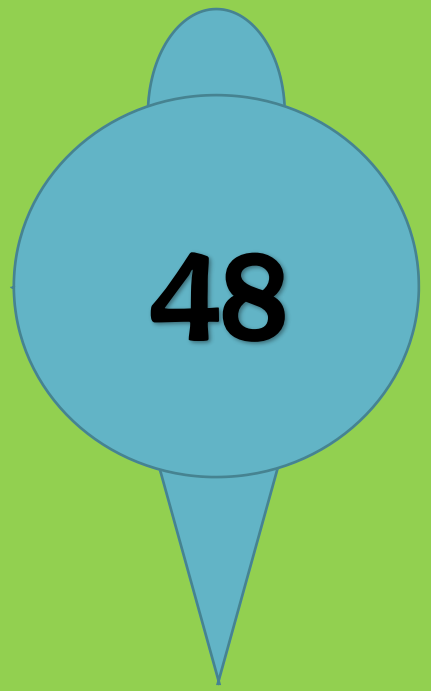
Prime number – by itself and one!

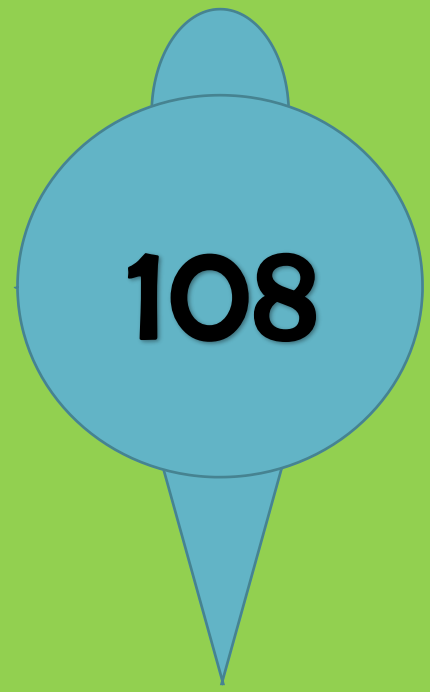
e.g. 11 can only be divided by itself and one therefore is a PRIME number.

RECALL

Identify the factors for these numbers... Complete the factor bugs!

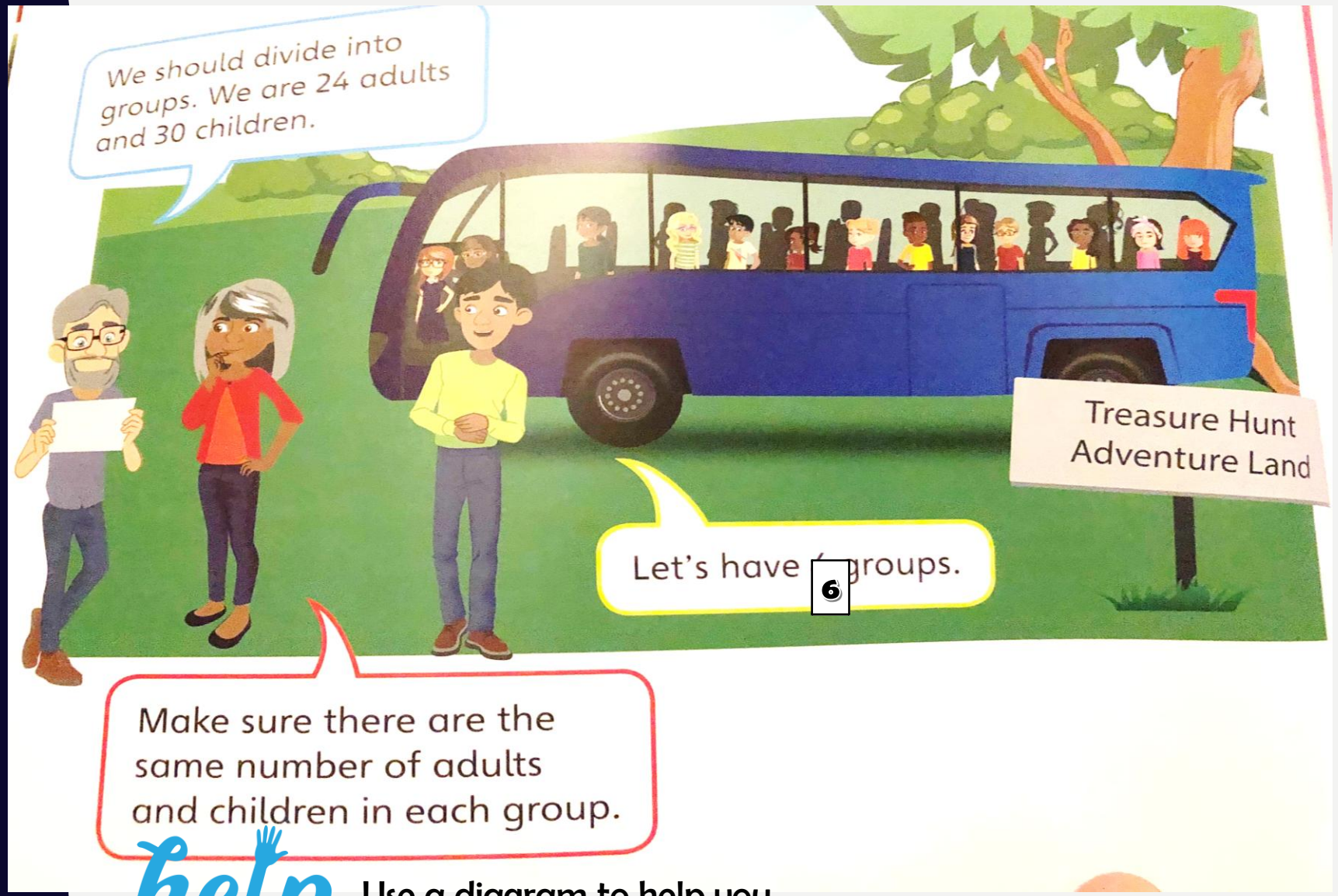






L.O. IDENTIFY COMMON FACTORS, COMMON MULTIPLES AND PRIME NUMBERS.

- SOME WILL EVEN: Find patterns and quick ways to identify.
- SOME WILL: Identify common factors and multiples.
- MOST WILL: Identify specific factors, multiples and prime numbers.
- ALL WILL: Understand meaning of multiple, factor and prime number.



EXPLORE

1 a) Can the adults and children split equally into 6 groups?

b) What other equals groups could the adults and children split into? (common factors)

help

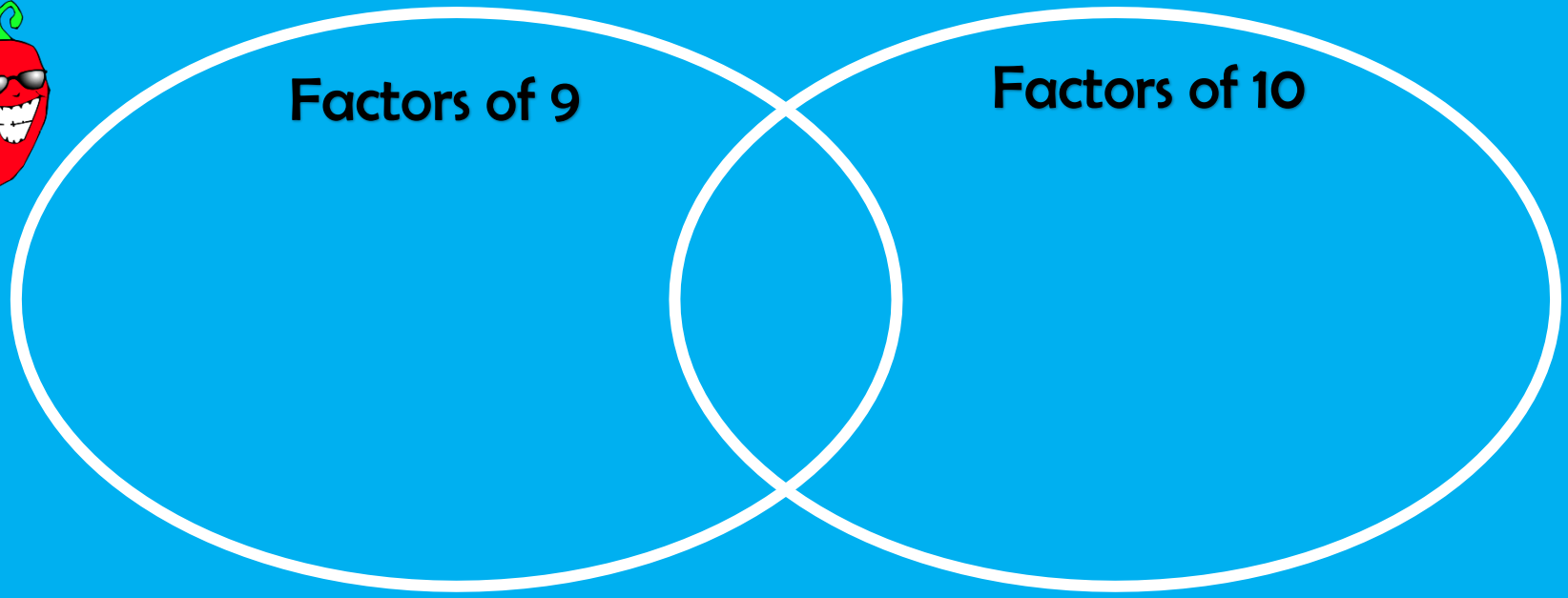
Use a diagram to help you.

CHALLENGE!

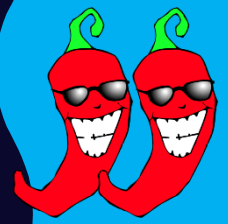
1 more adults decide to join the treasure hunt. How does this affect groups? Should they group differently now?

Intelligent Practice

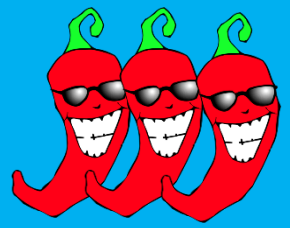




The common factor of 9 and 10 are _____.



Draw a Venn diagram for factors of 15 and 30. Identify the common factors.



Draw a Venn diagram for factors of 24 and 48. Identify the common factors.



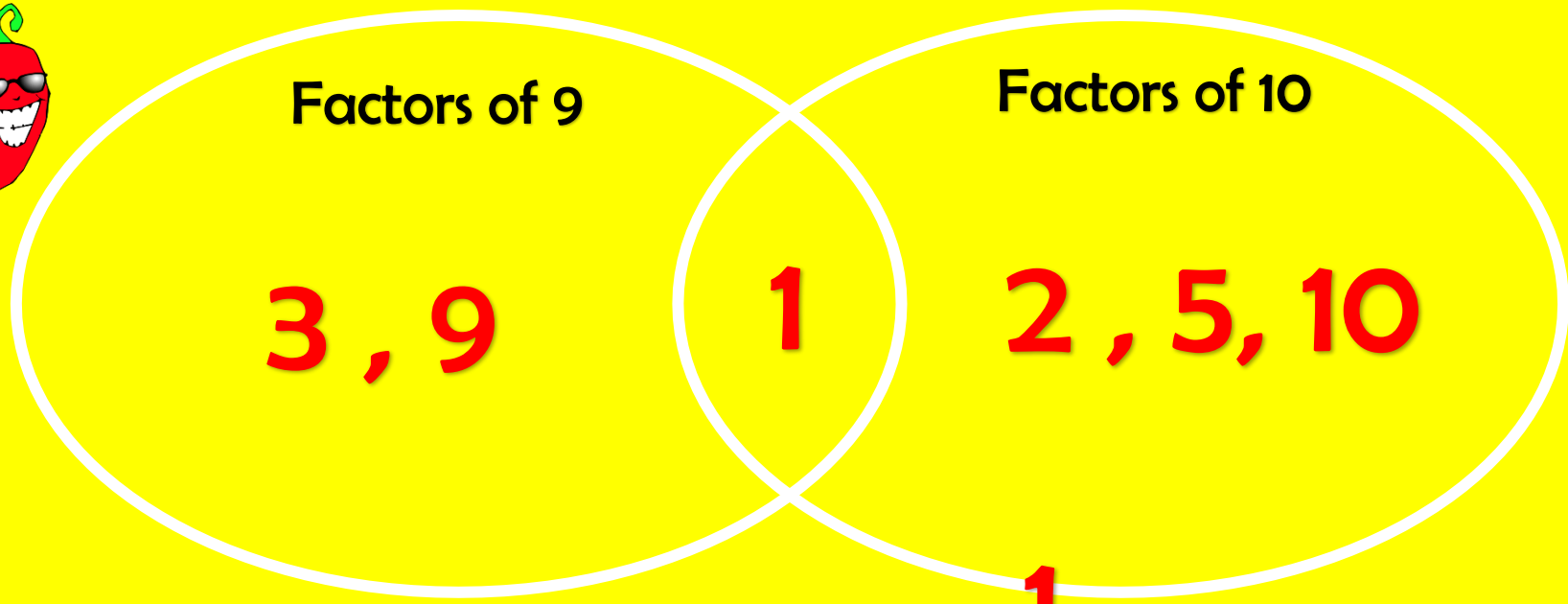


Write three factors of 30 that are **not** factors of 15

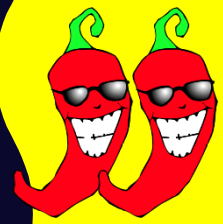
2 marks

Intelligent Practice

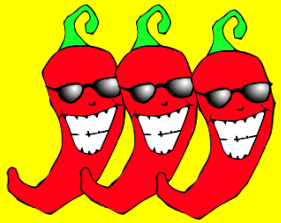




The common factors of 9 and 10 are 1.



15 = 1, 3, 5, 15
30 = 1, 2, 3, 5, 6, 10, 15
CF = 1, 3, 5, 15



24 = 1, 2, 3, 4, 6, 8, 12, 24
48 = 1, 2, 3, 4, 6, 8, 12, 16, 24, 48
CF = 1, 2, 3, 4, 6, 8, 12, 24



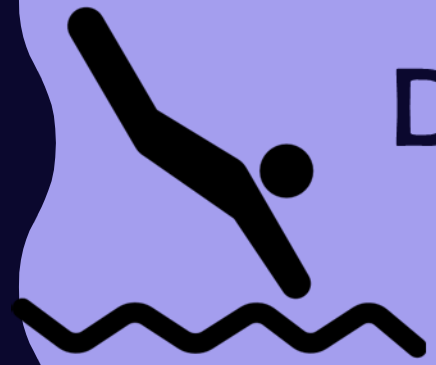


Write three factors of 30 that are **not** factors of 15

2	10	30

2 marks





DIVE DEEPER 1

1) Write **all** the numbers between 50 and 100 that are **factors of 180**

2 marks

2) Complete this sentence.

Every number with a factor of **10** must also have factors of

and and

3) Tick the numbers that are common factors of both **12 and 18**

- 2
- 3
- 6
- 9
- 12





DIVE DEEPER 1

1) Write **all** the numbers between 50 and 100 that are **factors of 180**

60, 90

2 marks

2) Complete this sentence.

Every number with a factor of **10** must also have factors of

1 and 2 and 5

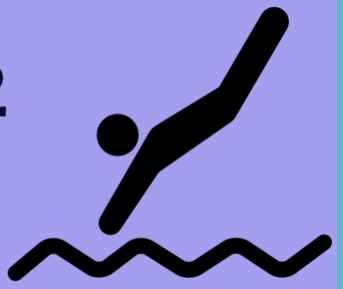
3) Tick the numbers that are common factors of both **12 and 18**

- 2 ☑
- 3 ☑
- 6 ☑
- 9 ☐
- 12 ☐





DIVE DEEPER 2



1)

This three-digit number has **2** and **7** as **factors**.

2 9 4

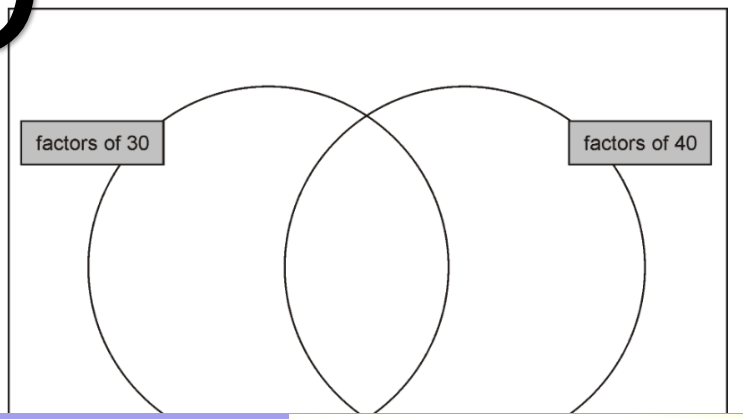
Write another **three-digit** number which has **2** and **7** as **factors**.



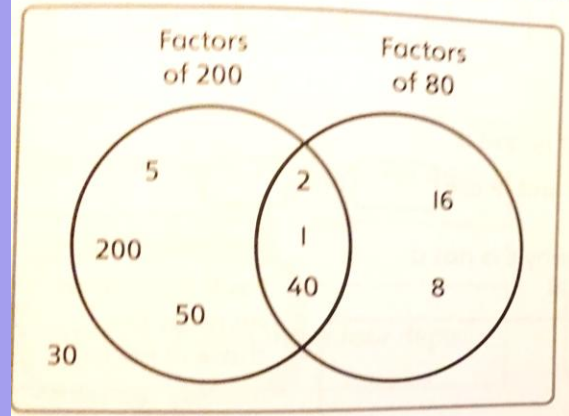
2)

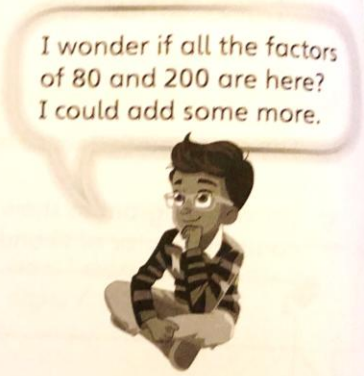
Write these numbers in the correct places on the diagram.

5 6 7 8



3 Max has made **two** mistakes. Find them and prove they are mistakes.





☐ is in the wrong place because _____

☐ is in the wrong place because _____

4 a) Complete the table to show all the factors of 35, 50 and 70.

Factors of 35	Factors of 50	Factors of 70

Circle the common factors of all three numbers.

b) Lexi thinks of three numbers that have the common factors 1, 2, 3, 4 and 5. What could Lexi's numbers be?

_____



DIVE DEEPER 2





This three-digit number has **2** and **7** as **factors**.

2 9 4

Write another **three-digit** number which has **2** and **7** as **factors**.

1)

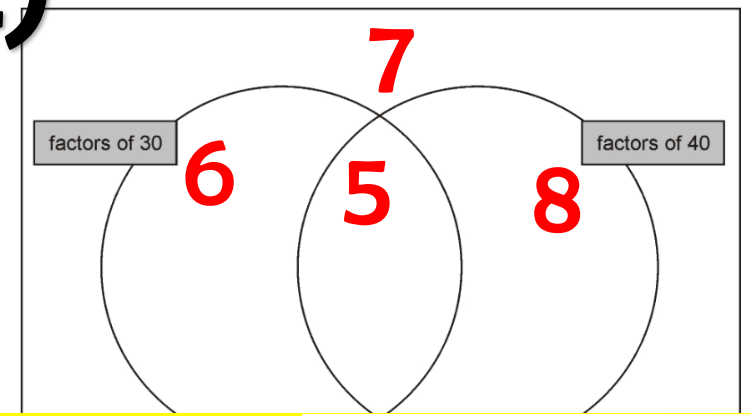
7	1	4

2 2 4

2)

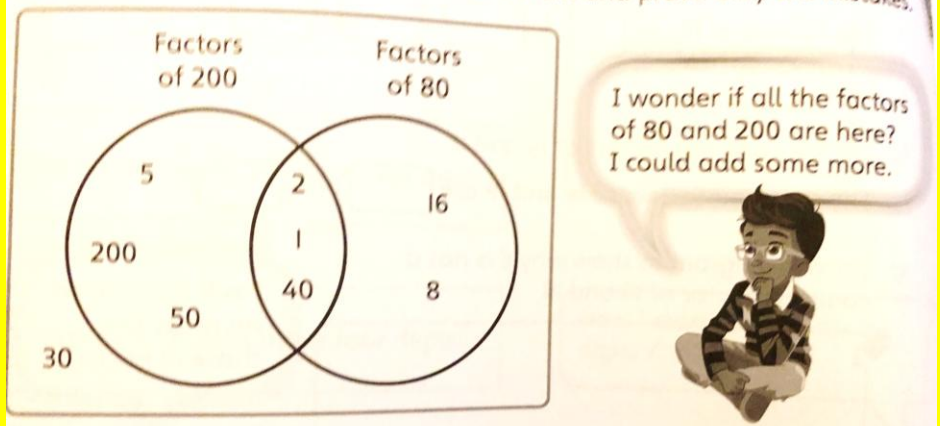
rite these numbers in the correct places on the diagram.

5 6 7 8





3 Max has made **two** mistakes. Find them and prove they are mistakes.



☐ is in the wrong place because _____

☐ is in the wrong place because _____

5 and 8 in wrong place

4 a) Complete the table to show all the factors of 35, 50 and 70.

Factors of 35	Factors of 50	Factors of 70

Circle the common factors of all three numbers.

b) Lexi thinks of three numbers that have the common factors 1, 2, 3, 4 and 5. What could Lexi's numbers be?

_____

Factor Lines

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

1	2	3	21

Arrange the four number cards (1, 2, 3 and 21) on the grid above to make a diagonal, vertical or horizontal line.
You can put a number card on a square with

- a multiple of that number
- a factor of that number.

In how many different ways can you do it? Can you use a strategy that you haven't tried before?

https://nrich.maths.org/1138

Factors and Multiples Game