

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.

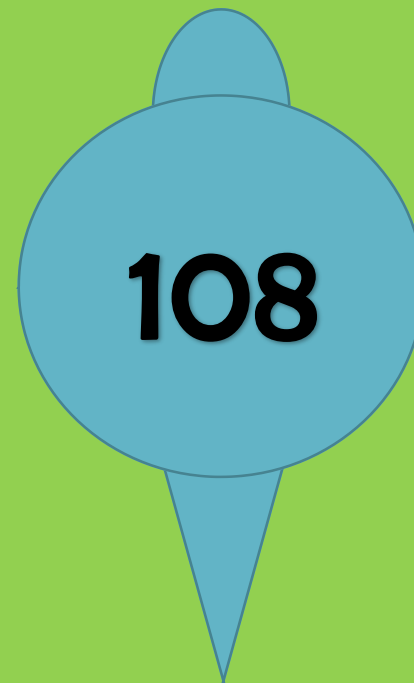
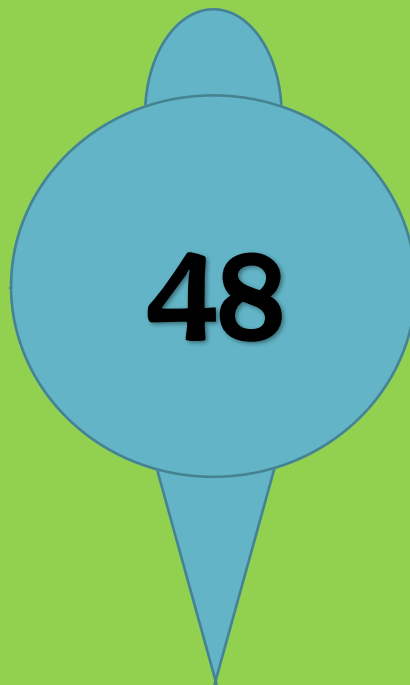
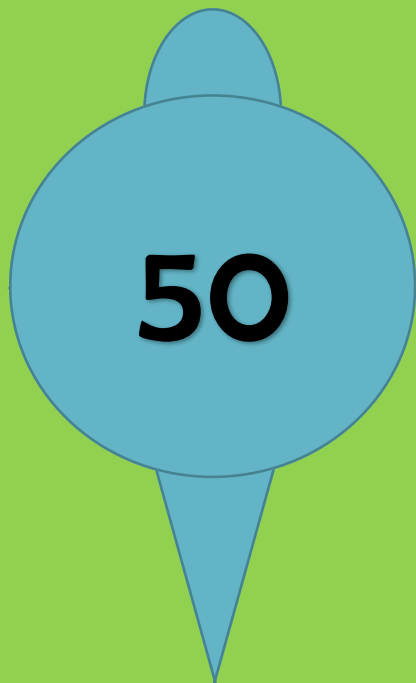
Prime number – by
itself and one!

e.g. 11 can only be divided
by itself and one

therefore is a **PRIME**
number.

RECALL

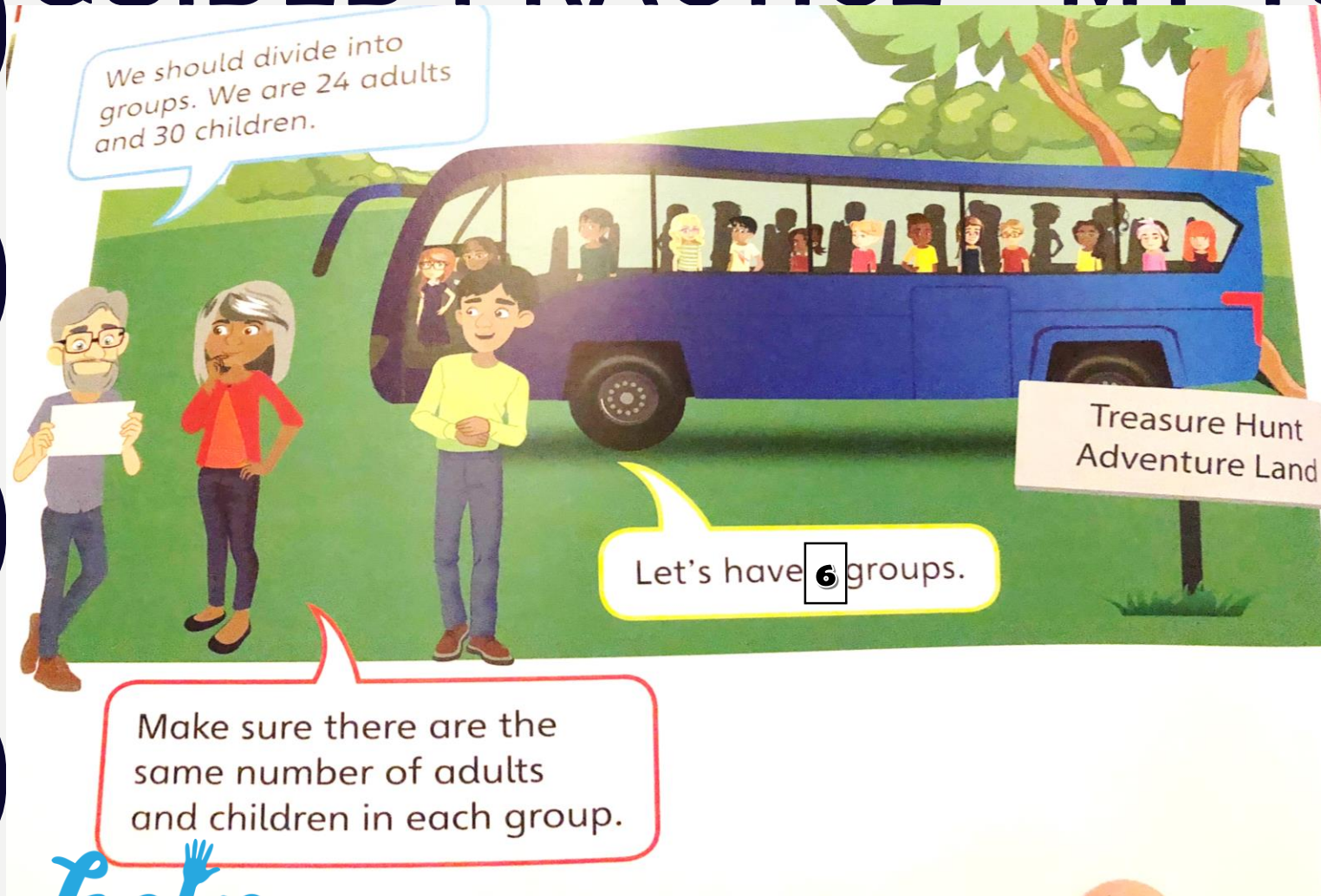
Identify the factors for these numbers... Complete the factor bugs!



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.

GUIDED PRACTICE - MY TURN



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)

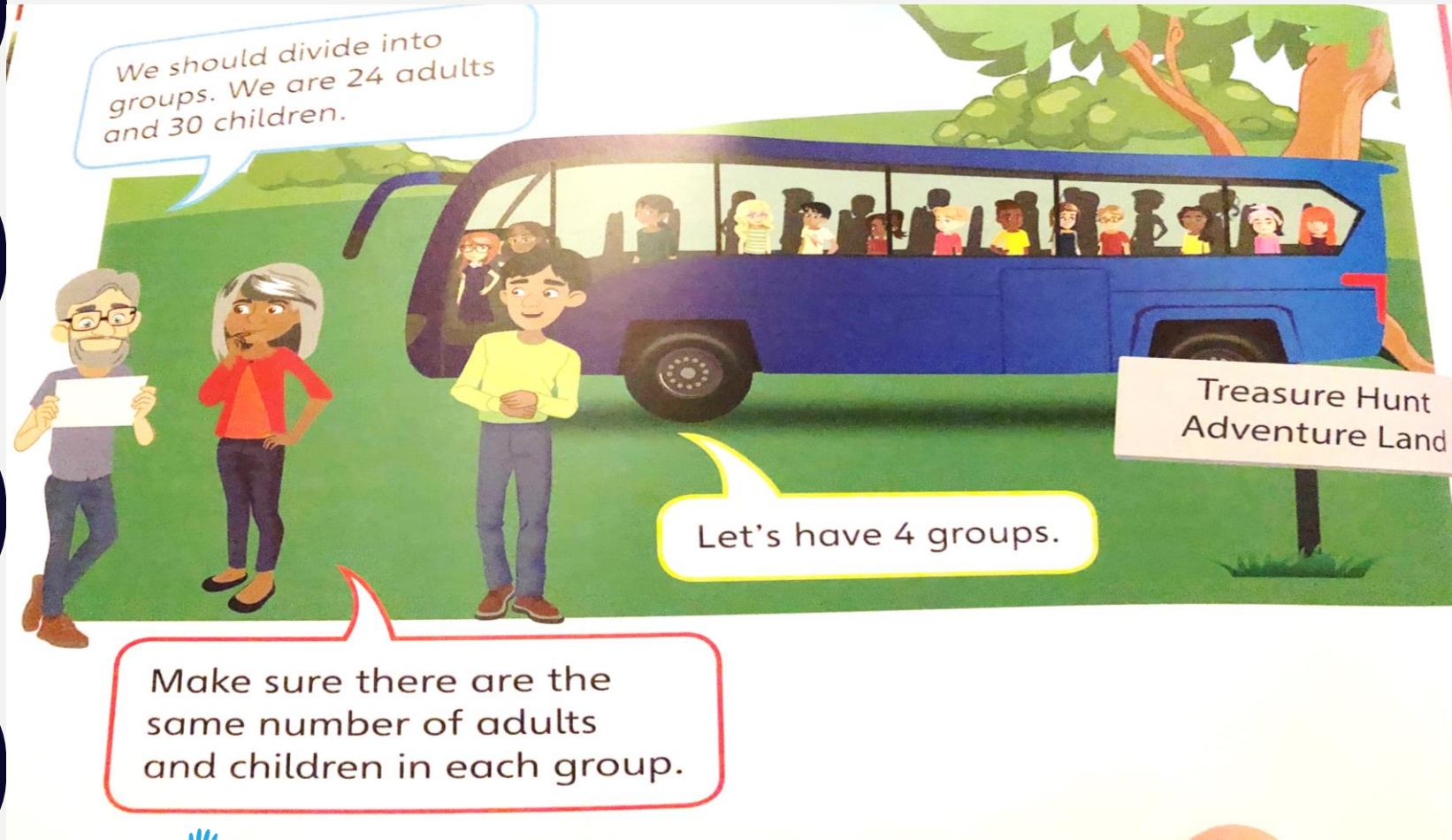
help

Use a diagram to help you.



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

GUIDED PRACTICE - YOUR TURN



1 a) Can the adults and children split equally into 4 groups?

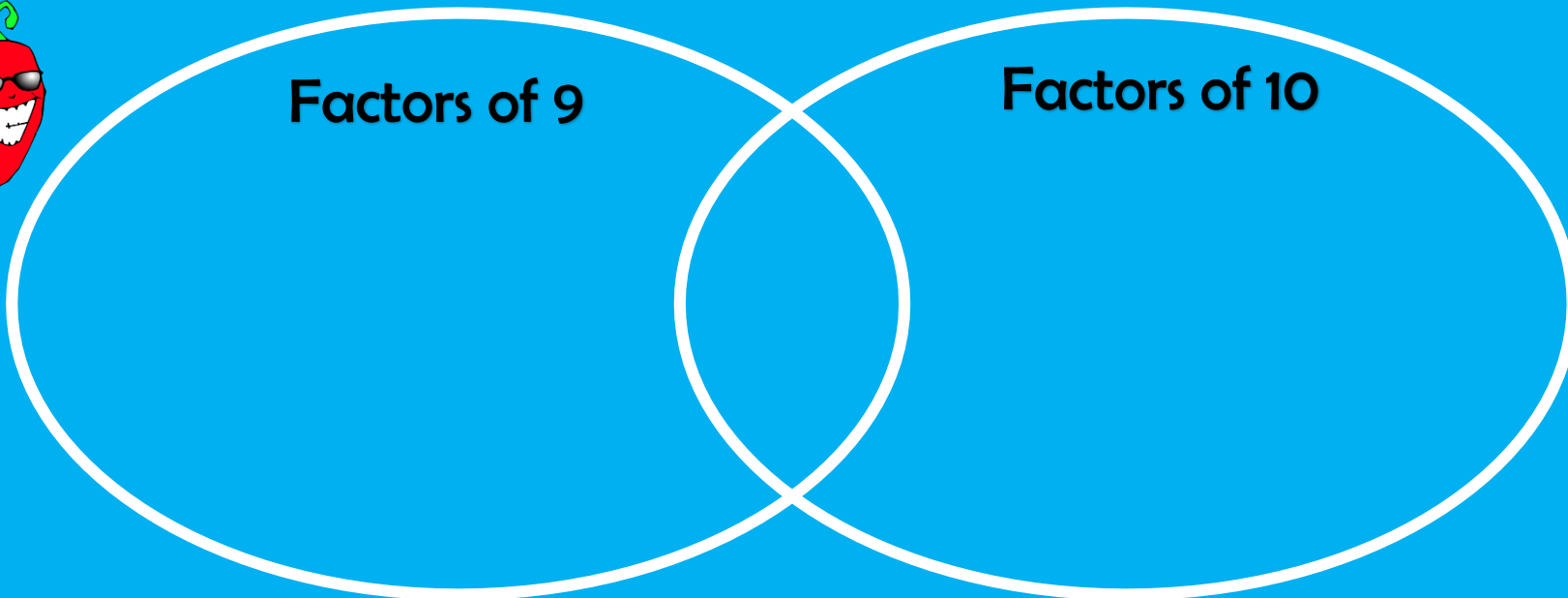
b) What other equals groups could the adults and children split into?

help

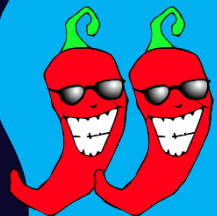
Use a diagram to help you.



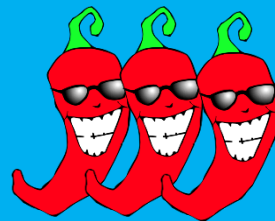
2 more adults decide to join the treasure hunt. How does this affect groups?



The common factors of 9 and 10 are _____.



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

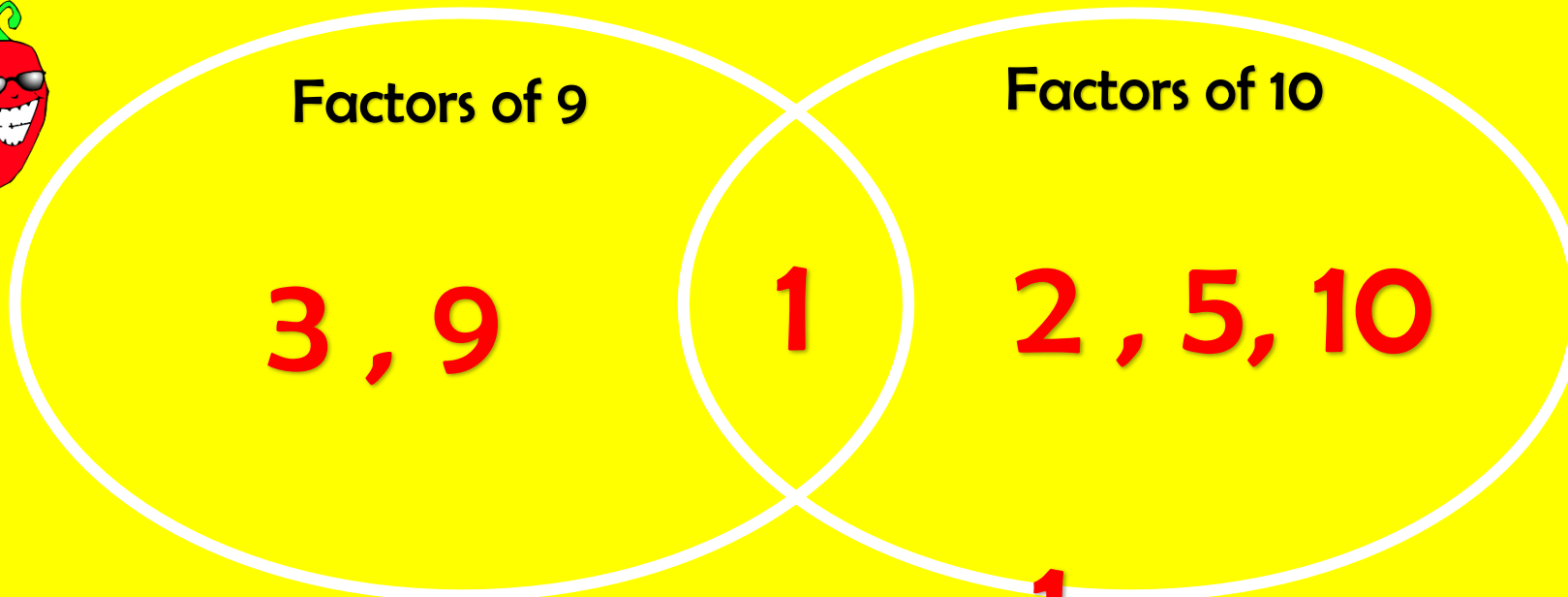


Draw a Venn diagram for factors of 24 and 48. Identify the common factors.



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

2 marks



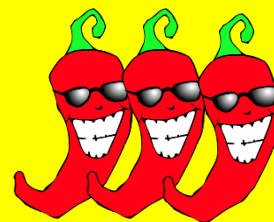
The common factors of 9 and 10 are 1.



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

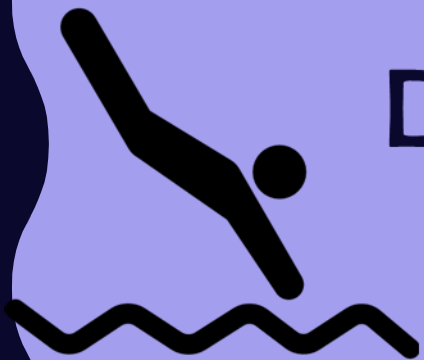
2

10

30

2 marks





DIVE DEEPER 1

3)

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

2 ☐

3 ☐

6 ☐

9 ☐

12 ☐

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





DIVE DEEPER 1

3)

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

2 ☒

3 ☒

6 ☒

9 ☐

12 ☐

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**



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)

--	--	--

DIVE DEEPER 2



Write these numbers in the correct places on the diagram.

2)

5

6

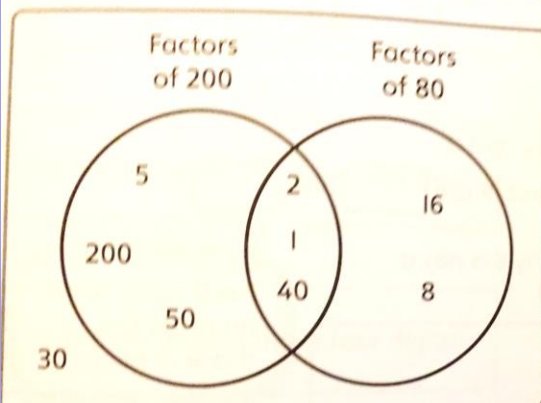
7

8

factors of 30

factors of 40

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



I wonder if all the factors of 80 and 200 are here?
I could add some more.



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?



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

2 9 4

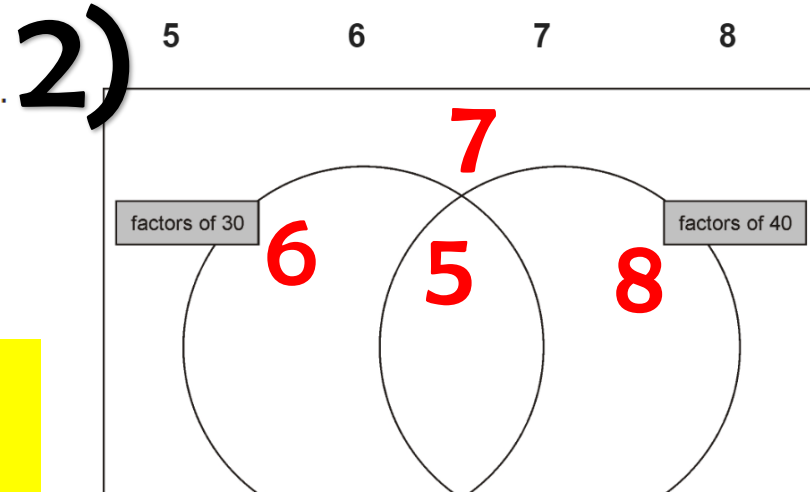
Write another **three-digit** number which has 2 and 7 as **factors**.

7 1 4

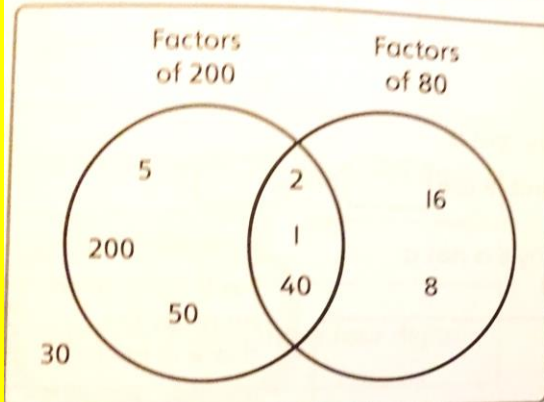
2 2 4

DIVE DEEPER 2

Write these numbers in the correct places on the diagram.



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



I wonder if all the factors of 80 and 200 are here?
I could add some more.



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>