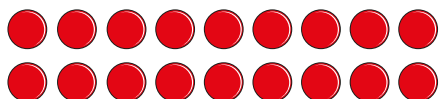**1** Kim is using counters to find factors of 18

She arranges the counters in one row.

Then she arranges the counters in two rows.

a) Kim's array shows four numbers that are factors of 18

Which numbers are they?

b) What are the two other factors of 18?

c) Use counters to find the factors of 27

List the factors of 27

d) List the common factors of 18 and 27

Why are these numbers common factors?

2 Complete the sentences.

a) The factors of 24 are _____

The factors of 36 are _____

The common factors of 24 and 36 are _____

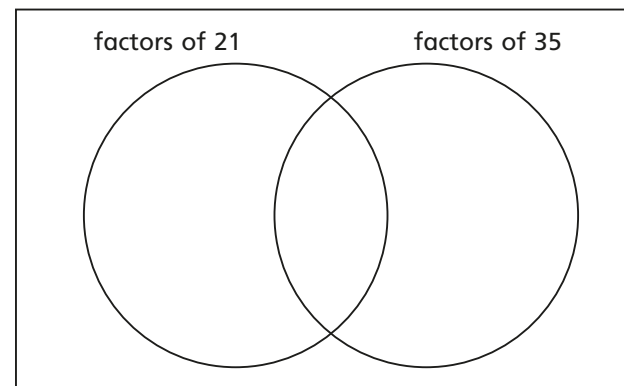**b)** The factors of 30 are _____

The factors of 45 are _____

The common factors of 30 and 45 are _____

3 **a)** Write the numbers on the diagram.

| 1 | 3 | 5 | 7 | 21 | 35 |

factors of 21   factors of 35

b) What are the common factors of 21 and 35?

c) How does the Venn diagram help you to list the common factors?

4 List the common factors of each pair of numbers.

a)   **15**   **20**

b)   **9**   **10**

5 Which pairs of numbers have only one common factor?

2 and 6   3 and 8   15 and 12

9 and 11   49 and 21   15 and 22

What do you notice?

3 **a)** Write the numbers on the diagram.

1   3   5   7   21   35

factors of 21   factors of 35

b) What are the common factors of 21 and 35?

c) How does the Venn diagram help you to list the common factors?

4 List the common factors of each pair of numbers.

a)

15   20

b)

9   10

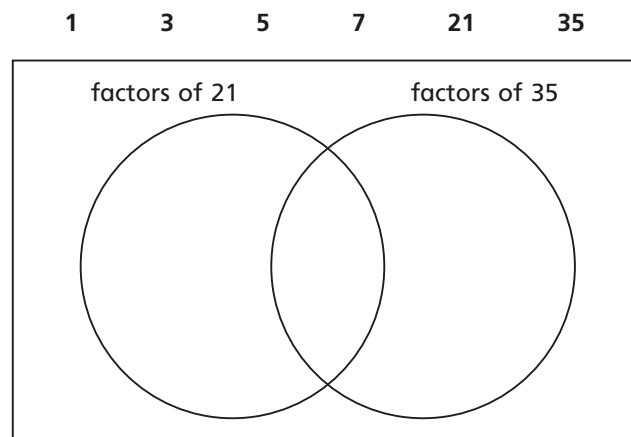**5** Which pairs of numbers have only one common factor?

2 and 6   3 and 8   15 and 12

9 and 11   49 and 21   15 and 22

What do you notice?

6

All the factors of 36 are common factors of 36 and 72

Do you agree with Mo?

Explain your reasoning.

Why do you think this happens?

7 **a)** List the factors of 60 in order from lowest to highest.

b) List the factors of 84 in order from smallest to greatest.

c) What is the highest common factor of 60 and 84?

8 Whitney bakes 24 cakes.

Dexter bakes 30 cakes.

Boxes can hold 2, 3, 4, 5, 6 or 10 cakes.

Whitney and Dexter want to share their cakes equally into boxes.

a) Which boxes could Whitney use?

b) Which boxes could Dexter use?

c) Which boxes could they both use?

Compare answers with a partner.

9

I am thinking of two numbers between 70 and 80. The common factors are 1, 2, 4 and 8

What are the two numbers that Teddy is thinking of?