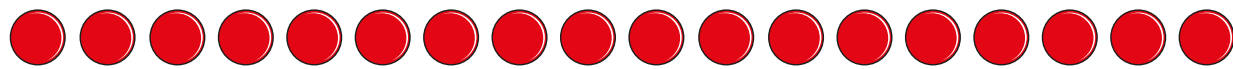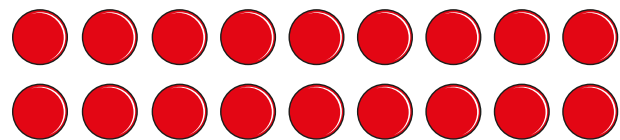# Common factors

1 Kim is using counters to find factors of 18

She arranges the counters in an array with one row.

Then she arranges the counters in an array with two rows.

a) Kim's arrays show 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 _____

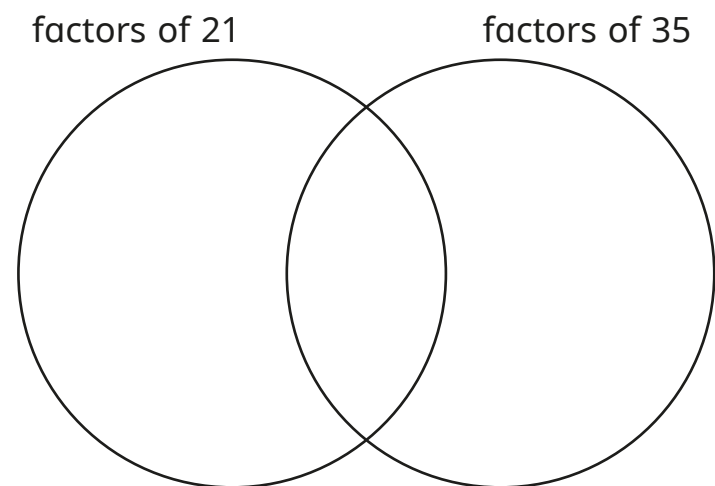The factors of 36 are _____

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 in the sorting 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 sorting 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 Circle the pairs of numbers that 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.

_____

_____

Can you think of any other numbers for which this would happen?

7 **a)** List the factors of 60 in order from smallest to greatest.

_____

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

_____

c) What is the greatest 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.

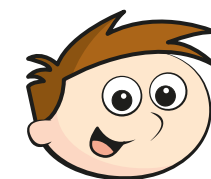Whitney and Dexter want to share their cakes equally into boxes.

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?

☐ and ☐