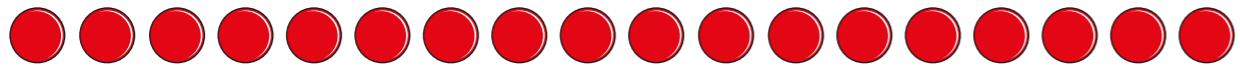


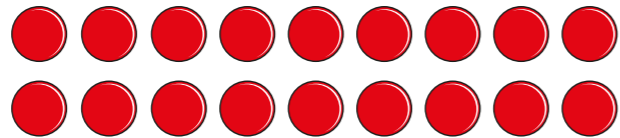
Common factors

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

1 3 9 27

d) List the common factors of 18 and 27

1 3 9

Why are these numbers common factors?



2 Complete the sentences.

a) The factors of 24 are 1, 2, 3, 4, 6, 8, 12, 24

The factors of 36 are 1, 2, 3, 4, 6, 9, 12, 18, 36

The common factors of 24 and 36 are 1, 2, 3, 4, 6, 12

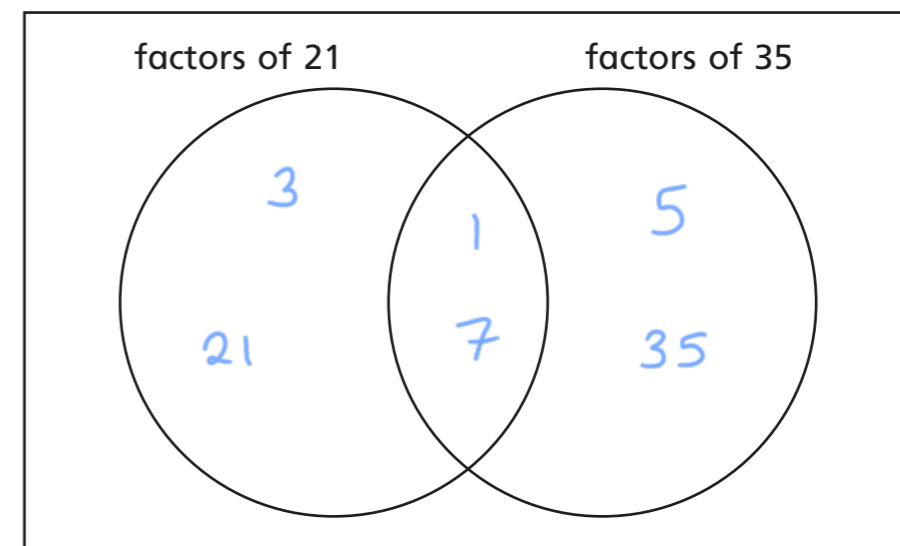
b) The factors of 30 are 1, 2, 3, 5, 6, 10, 15, 30

The factors of 45 are 1, 3, 5, 9, 15, 45

The common factors of 30 and 45 are 1, 3, 5, 15

3 a) Write the numbers on the diagram.

1 3 5 7 21 35



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

1, 7

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

1, 5

b)

9 10

1

5 Circle the pairs of numbers that have only one common factor.

2 and 6

3 and 8

15 and 12

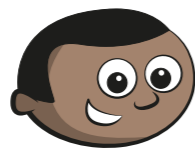
9 and 11

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? yes

Explain your reasoning.

36 is a factor of 72 therefore all of its factors

are factors of 72

Why do you think this happens?

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

1, 2, 3, 4, 5, 6, 10, 12, 15, 20, 30, 60

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

1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42, 84

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

12

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?

2, 3, 4, 6

b) Which boxes could Dexter use?

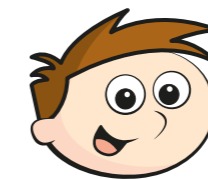
2, 3, 5, 6, 10

c) Which boxes could they both use?

2, 3, 6

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?

72 and 80

