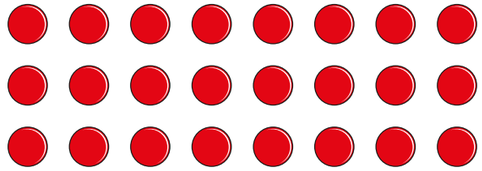
Understand and use factors

1 The array shows that 3 and 8 are factors of 24



a) Use counters to find other factors of 24

List your answers.

b) Use counters to explain why 5 is not a factor of 24

Discuss your findings with a partner.

2 **a)** Draw all of the arrays that you can make using 16 counters.

b) Use your arrays to list all the factors of 16

3 **a)** Draw all of the arrays that you can make using 7 counters.

b) What does your answer to part a) tell you about the number 7?

4 Complete the factor pairs for 20

☐ and 20 2 and ☐ 4 and ☐

Are there any more? How do you know?

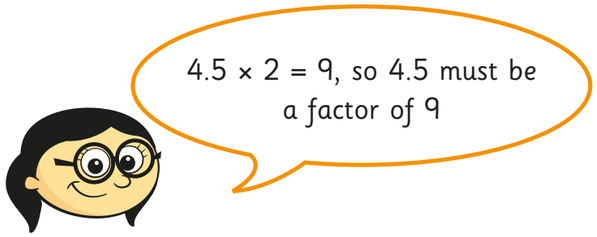
5 Find all the factors of these numbers.

a) 25

b) 18

c) 30

6



Is Annie correct? _____

Explain your reasoning.

7 Filip is finding the factors of 60

He finds the following factors by halving and doubling the numbers in the previous factor pair.

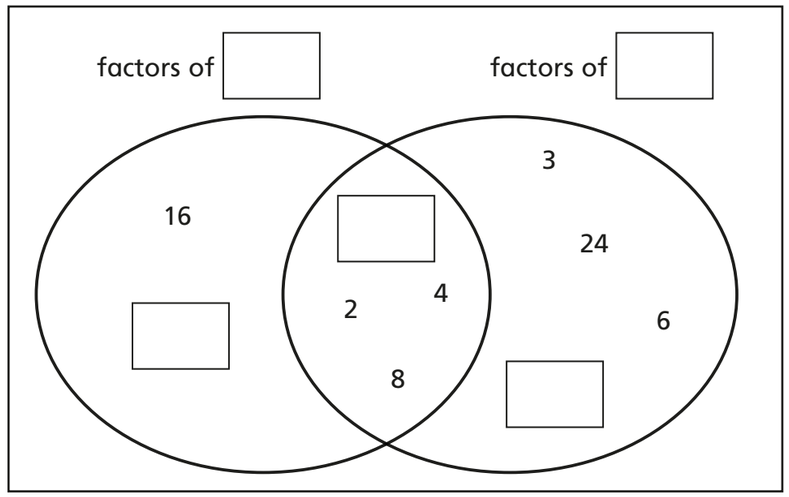
60 and 1	30 and 2	15 and 4

Filip thinks he has found all the factors of 60 because he can't halve 15

Do you agree with Filip? _____

Explain why.

8 **a)** Complete the Venn diagram.



b) What are the common factors shown in the Venn diagram?

_____

c) What is the highest common factor shown in the Venn diagram? ☐

9 Find the common factors of these pairs of numbers.

State the highest common factor.

a) 15 and 35

The common factors of 15 and 35 are _____

The highest common factor is ☐

b) 100 and 40

The common factors of 100 and 40 are _____

The highest common factor is ☐

c) 48 and 32

The common factors of 48 and 32 are _____

The highest common factor is ☐