

# Factor pairs

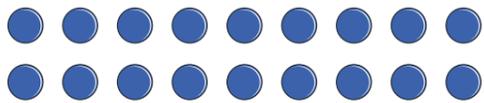


1 Alex is using arrays to find the factor pairs of 18

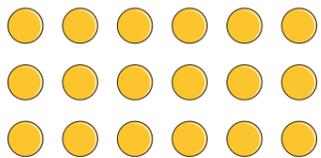
a) What calculation is represented in each array?



$$\square \times \square = 18$$



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Explain why there are no other arrays that can be made using 18 counters.

b) Complete the sentences.

18 has  factor pairs.

18 has  factors altogether.

c) List all the factors of 18

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2 Use counters to make arrays and find the factor pairs for each number.

a) 10 \_\_\_\_\_

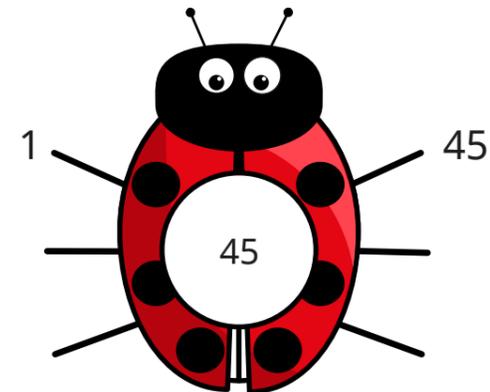
b) 15 \_\_\_\_\_

c) 24 \_\_\_\_\_

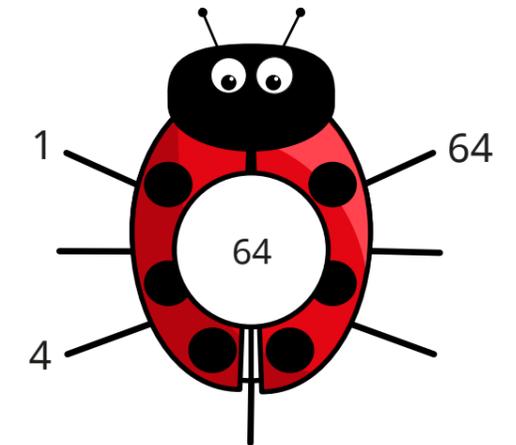
Which of the numbers has the most factor pairs?

3 Complete the factor bugs.

a)



b)



4 a) Draw a factor bug for 72

b) List all the factors of 72

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5 Find all the factor pairs for each number.

a) 28

\_\_\_\_\_

b) 50

\_\_\_\_\_

c) 25

\_\_\_\_\_

6 Are the statements true or false?

a) 8 and 2 are both factors of 10 \_\_\_\_\_

b) 5 and 50 are both factors of 50 \_\_\_\_\_

c) 25 has only three factors. \_\_\_\_\_

d) All the factors of 15 are odd. \_\_\_\_\_

Talk about your answers with a partner.

7



The greater the number, the more factor pairs it has.

Use examples to show that Dexter is wrong.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8 Tommy is finding factors of 12 and 18

12 and 18 have the same number of factor pairs.



Is Tommy correct? \_\_\_\_\_

Explain your answer.

9 Class 4B is having a sports day.

There are 36 children in the class.

The children need to be in equal groups.

What group sizes are possible?

\_\_\_\_\_

\_\_\_\_\_

10 Rosie is investigating factor pairs.

6 is a perfect number because when you add its factors together, apart from itself, they equal 6

What is the next perfect number after 6?

\_\_\_\_\_