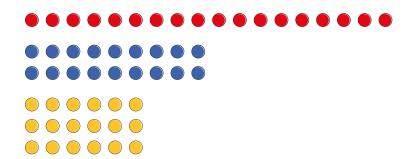
## **Factor pairs**



- Alex is making arrays using counters.
  - a) What calculation is represented in each array?



- **b)** Use your answers from part a) to help you write all the factors of 18
- 2 Use counters to make arrays and find the factor pairs for each number.



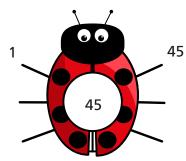
**a)** 12

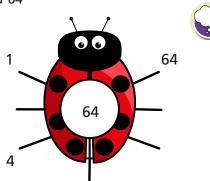
**b)** 15

c) 24

Which of the numbers has the most factor pairs?

Complete the factor bugs for 45 and 64





Find all the factor pairs for the number 72



- Are these statements true or false?
  - 8 and 2 are both factors of 10
  - 5 and 50 are both factors of 50
  - 25 has only three factors.

All the factors of 15 are odd.

Talk about your answers with a partner.



6



The bigger the number the more factor pairs it has.

Use examples to show that Dexter is wrong.

7 Tommy is finding factors of 12 and 18

12 and 18 have the same number of factor pairs.



- a) Is Tommy correct?
  - Explain your answer.
- **b)** Find two other numbers with the same number of factor pairs.

## **Factor pairs**



- Find all the factor pairs for the number 72
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There are 36 children in the class.

The children need to be in equal groups.

What group sizes are possible?





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?