

# Identifying Common Factors

1. These counters show two factors of 16: 1 and 16 because  $1 \times 16 = 16$ .

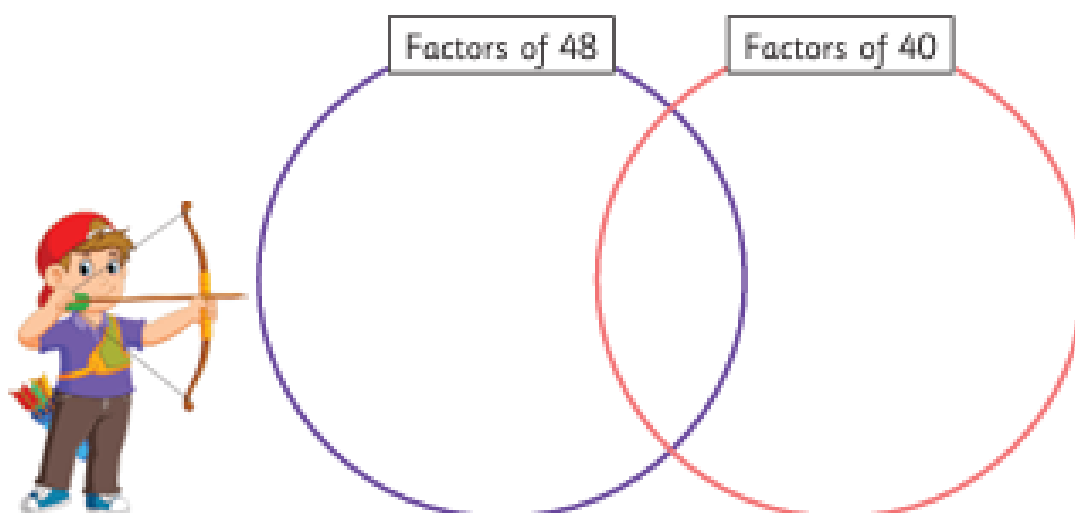


- a) Circle which of these groups of counters also shows two factors of 16.



- b) Which two factors of 16 does your choice of counters show? ..... and .....
2. a) Sort the numbers in the box into the correct parts of the Venn diagram.

1	2	3	4	6	8	10	12	16	20	24	40	48
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- b) What term is given to the numbers in the centre of the Venn diagram?

.....

3. Write the common factors for each pair of numbers given.

a) 36 and 42 .....

b) 32 and 56 .....

c) 66 and 99 .....

d) 65 and 85 .....

e) 42 and 55 .....

# Identifying Common Factors

4. a) Circle the common factors of 36 and 48.

1   2   3   4   5   6   7

b) Have a look at the numbers that haven't been circled. Give two numbers which are less than 100 that have these numbers as factors. .... and .....

5. What is the greatest common factor of each of these sets of numbers?

a) 24 and 42 .....

b) 45 and 75 .....

c) 72 and 64 .....

d) 60, 120 and 84 .....

6. State whether each of these statements is true or false. Write an explanation for your answer for any which are **false**.



a) Two odd numbers will only have odd common factors.

.....  
.....

b) Two even numbers will only have even common factors.

.....  
.....

c) Any pair of numbers will always have at least two common factors.

.....  
.....

# Identifying Common Factors

## Answers

1. These counters show two factors of 16: 1 and 16 because  $1 \times 16 = 16$ .



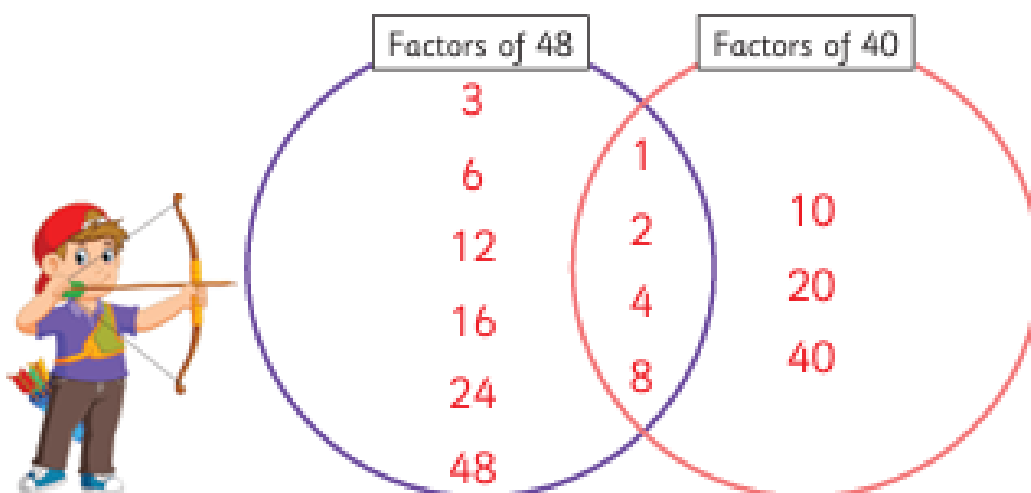
- a) Circle which of these groups of counters also shows two factors of 16.



- b) Which two factors of 16 does your choice of counters show? 2 and 8

2. a) Sort the numbers in the box into the correct parts of the Venn diagram.

1 2 3 4 6 8 10 12 16 20 24 40 48



- b) What term is given to the numbers in the centre of the Venn diagram?

Common factors

3. Write the common factors for each pair of numbers given.

a) 36 and 42 1, 2, 3, 6

b) 32 and 56 1, 2, 4, 8

c) 66 and 99 1, 3, 11, 33

d) 65 and 85 1, 5

e) 42 and 55 1

# Identifying Common Factors

## Answers

4. a) Circle the common factors of 36 and 48.

1 2 3 4 5 6 7

b) Have a look at the numbers that haven't been circled. Give two numbers which are less than 100 that have these numbers as factors. 35 and 70

5. What is the greatest common factor of each of these sets of numbers?

a) 24 and 42 6

b) 45 and 75 15

c) 72 and 64 8

d) 60, 120 and 84 12

6. State whether each of these statements is true or false. Write an explanation for your answer for any which are false.



a) Two odd numbers will only have odd common factors.

True

b) Two even numbers will only have even common factors.

False. All numbers have a factor of 1, which is an odd number.

c) Any pair of numbers will always have at least two common factors.

False. Some pairs of numbers only have a common factor of 1, e.g. 31 and 45.