

# Finding the HCF

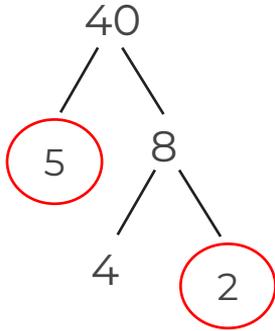
Maths

Mr Lund



# Finding the HCF

1. Troy is writing 40 as a product of its prime factors. He draws a factor tree to help him.

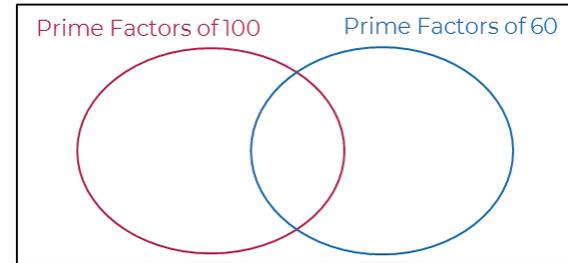


- Complete the factor tree for 40
- Write 40 as a product of its prime factors.

2. a) Write 100 as a product of its prime factors.

b) Write 60 as a product of its prime factors.

c) Complete the Venn diagram.



d) Work out highest common factor (HCF) of 100 and 60



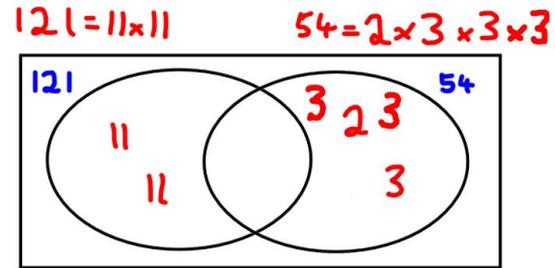
# Finding the HCF

3. Work out the HCF of each of the following pairs of numbers

- a) 45 and 60
- b) 48 and 72
- c) 120 and 150
- d) 90 and 72
- e) 180 and 96

4. Tom wants to find the HCF of 121 and 54

He writes each number as the product of its prime factors and draws a Venn diagram.



What is the HCF of 121 and 54?

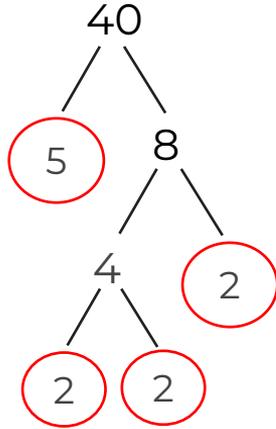


# Answers



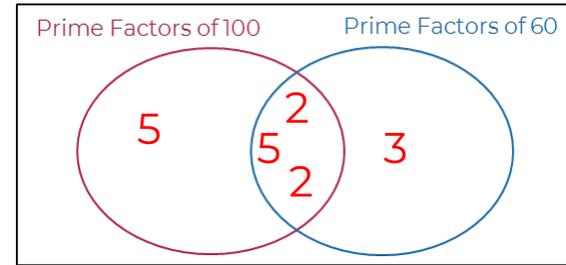
# Finding the HCF

1. Troy is writing 40 as a product of its prime factors. He draws a factor tree to help him.



- a) Complete the factor tree for 40
- b) Write 40 as a product of its prime factors.  $40 = 2^3 \times 5$

2. a) Write 100 as a product of its prime factors.  $= 2 \times 2 \times 5 \times 5 = 2^2 \times 5^2$
- b) Write 60 as a product of its prime factors.  $= 2 \times 2 \times 3 \times 5 = 2^2 \times 3 \times 5$
- c) Complete the Venn diagram.



- d) Work out highest common factor (HCF) of 100 and 60  $20$



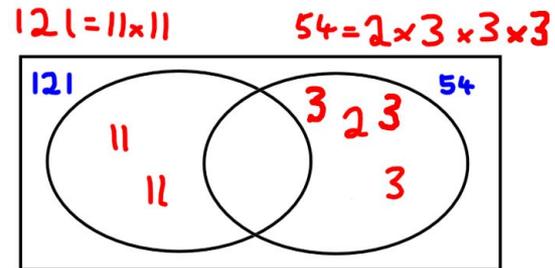
# Finding the HCF

3. Work out the HCF of each of the following pairs of numbers

- a) 45 and 60     15
- b) 48 and 72     24
- c) 120 and 150     30
- d) 90 and 72     18
- e) 180 and 96     12

4. Tom wants to find the HCF of 121 and 54

He writes each number as the product of its prime factors and draws a Venn diagram.



What is the HCF of 121 and 54? 1

