

Finding the LCM

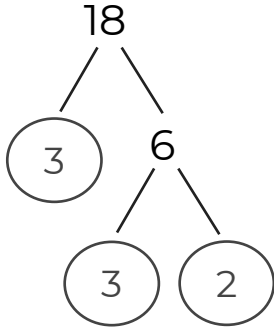
Maths

Mr Lund



Finding the LCM

1. Here is the prime factor tree for 18



a) Write 18 as a product of its prime factors.

b) Write your answer to part a) in index form.

2. Write each number as a product of its prime factors. You may want to use a factor tree to help.

a) 24

b) 30

c) 50

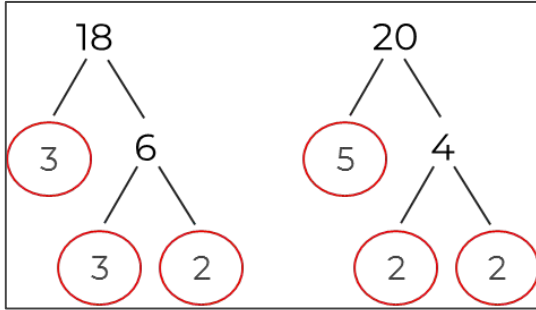
d) 100

e) 120

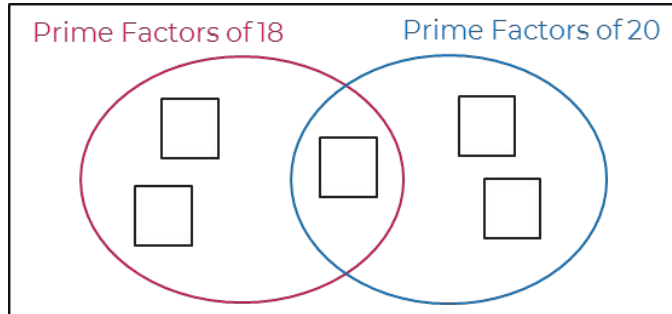


Finding the LCM

3. Here are the prime factors of 18 and 20



a) Complete the Venn diagram.



b) Work out the lowest common multiple (LCM) of 18 and 20

4. Work out the lowest common multiple of each pair of numbers.

a) 24 and 30

b) 18 and 50

c) 50 and 120

d) 45 and 36

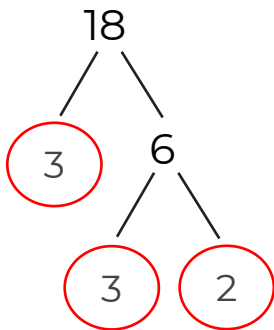


Answers



Finding the LCM

1. Here is the prime factor tree for 18



a) Write 18 as a product of its prime factors. $18 = 2 \times 3 \times 3$

b) Write your answer to part a) in index form. $18 = 2 \times 3^2$

2. Write each number as a product of its prime factors. You may want to use a factor tree to help.

a) $24 = 2 \times 2 \times 2 \times 3 = 2^3 \times 3$

b) $30 = 2 \times 3 \times 5$

c) $50 = 2 \times 5 \times 5 = 2 \times 5^2$

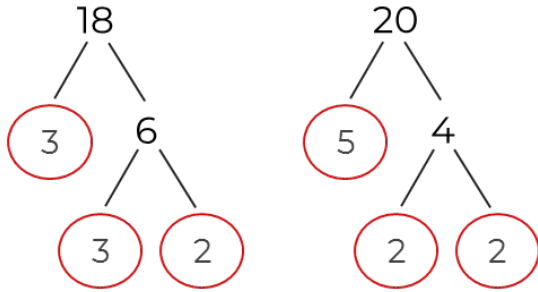
d) $100 = 2 \times 2 \times 5 \times 5 = 2^2 \times 5^2$

e) $120 = 2 \times 2 \times 2 \times 3 \times 5 = 2^3 \times 3 \times 5$

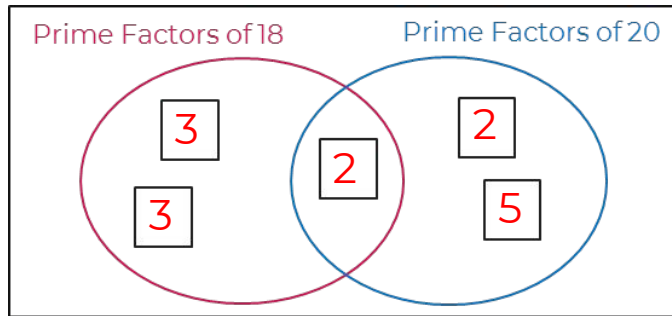


Finding the LCM

3. Here are the prime factors of 18 and 20



a) Complete the Venn diagram.



b) Work out the lowest common multiple (LCM) of 18 and 20 180

4. Work out the lowest common multiple of each pair of numbers.

a) 24 and 30 120

b) 18 and 50 450

c) 50 and 120 600

d) 45 and 36 180

