



## HOME LEARNING

YEAR 6

06/05/2020

### Morning Message

Good morning Year 6!

Today's facts of the day:

Our current queen trained as a mechanic during World War 2! She enlisted in the army and drove military trucks around the U.K.

The Japanese have a word for allowing lots of books to pile up on shelves but never reading them: *tsundoku*.

Try not to allow *tsundoku* to happen in your house. Now is a great time to read them!

The answer to yesterday's riddle: *an echo*. Today's riddle: *Where is the only place today come before yesterday?*

Have a great day!

Mr Larke and Miss Yerlisu

### Today's Picture



## Writing

Today we will be writing another piece of poetry. Using the above picture as inspiration, write any style of poetry you choose. This could be any of the following (or another if you choose). You might need to research these styles to help you remember them:

- haiku
- sonnet
- free verse
- acrostic

Try to choose a new style to last week. Think about what the image represents as well as what you can see.

### Tips for success:

- include powerful descriptive vocabulary to create imagery
- include poetic devices: similes, metaphors, alliteration, personification, onomatopoeia,
- use analogy e.g. comparing the swamp to a difficult journey in life,

## Reading

### Day 2: Teacher-led questions

#### Write in full sentences

1. Why had Dr. Watson left the army? (page 1)
2. What were the two things Dr. Watson was doing at the Criterion Bar? (page 1)
3. What evidence can you find on page 2 that implies that Stamford is not sure if Dr. Watson will like living with Sherlock Holmes?
4. 'I mulled this over until we reached the hospital.' (page 2) What does the word *mulled* tell us about what Dr. Watson is doing?
5. On page 3, find the sentence that begins 'I could see that his hands were covered...' What does that sentence tell Dr. Watson about Sherlock Holmes?
6. In the first paragraph on page, which phrase tells us that Sherlock Holmes is pleased with his discovery?
7. Have you ever discovered something which has made you excited in a similar way to Sherlock Holmes?

## Prime Factorisation

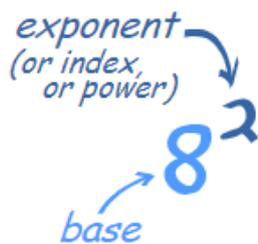
### Learning Objectives

After this lesson, you will be able to:

- define 'prime factorisation'
- solve for prime factorisation
- explain how prime factorisation is used in real life

Key Vocabulary; Prime factorisation, factors, prime numbers, factor tree, exponent

### Exponent



The exponent of a number says how many times to use that number in a multiplication.

It is written as a small number to the right and above the base number.

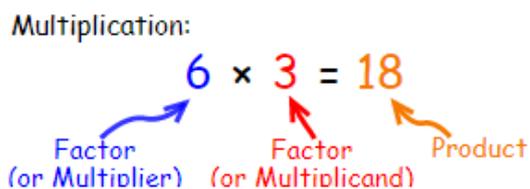
In this example:  $8^2 = 8 \times 8 = 64$

(The exponent "2" says to use the 8 two times in a multiplication.)

Another example:  $5^3 = 5 \times 5 \times 5 = 125$

(The exponent "3" says to use the 5 three times in a multiplication.)

### Product



The answer when two or more values are multiplied together.

### Prime Numbers

Prime numbers are numbers with exactly two factors.

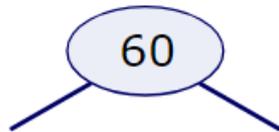
23 is a prime number.

The only numbers which divide into 23 exactly are:

1 and 23.

### Prime Factor Trees

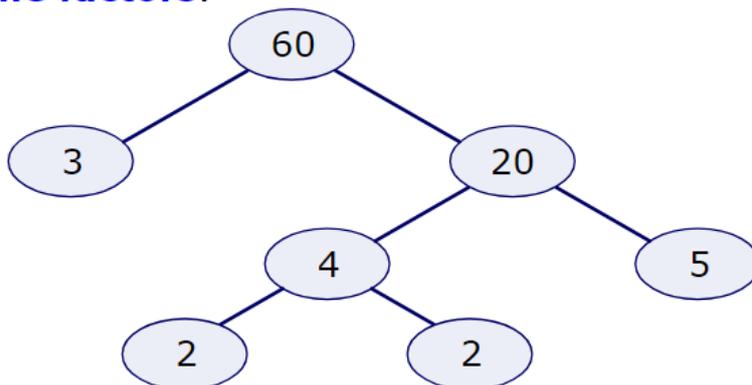
We can break down any number into a product of its **prime factors**.



We make **factor trees** to help us.

First think of two factors which multiply to give 60.

We can break down any number into a product of its **prime factors**.

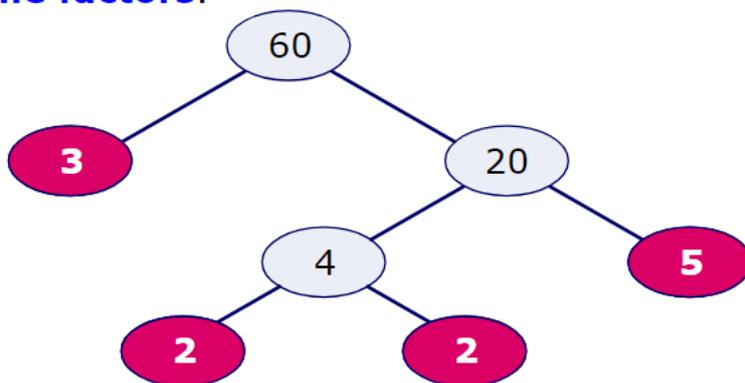


$$60 = 3 \times 20$$

$$20 = 4 \times 5$$

$$4 = 2 \times 2$$

We can break down any number into a product of its **prime factors**.

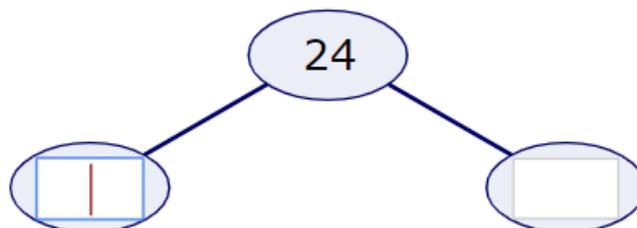


These numbers are the prime factors of 60.

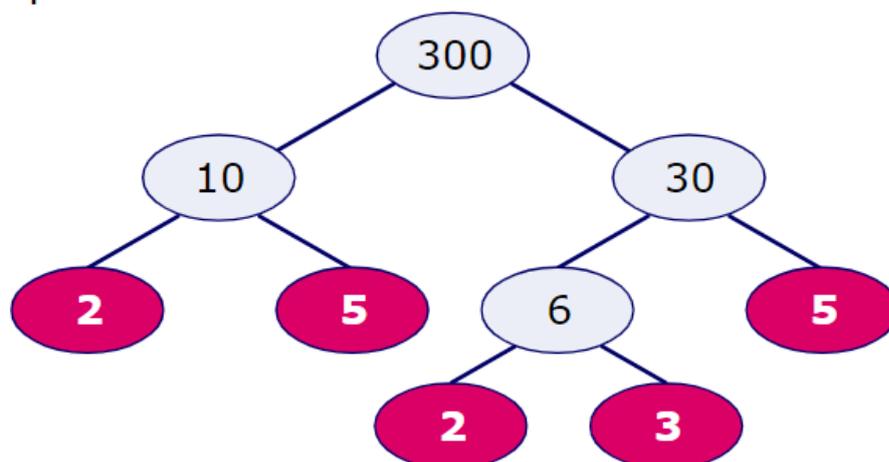
We can say that:  $60 = 2 \times 2 \times 3 \times 5$

or  $60 = 2^2 \times 3 \times 5$

Now you try!



Here is one possible factor tree for 300.



It shows that:  $300 = 2 \times 2 \times 3 \times 5 \times 5$

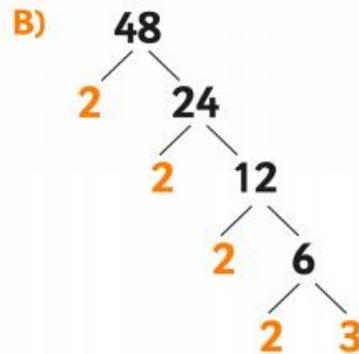
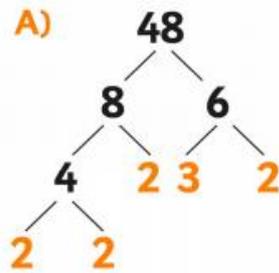
In index notation this is:  $= 2^2 \times 3 \times 5^2$

# Task

## Prime Factors

LO: I can find prime factors

The Factor Tree Method for finding prime factors is as follows:



Using one of these techniques, find the prime factors of the following numbers:

18, 20, 24, 27, 32, 36,

40, 42, 45, 52, 60, 70,

72, 80, 84, 88, 90, 96

Show your Factor Trees in your book.

## Extension

Write your answers in index notations. Example-  $18 = 2 \times 3^2$   
or  
try prime factors of 3 digit numbers.

## Weekly Spellings

This week we will be revising all 100 words that we have been learning these last few weeks. On Friday you will ask a family member to test you on a random 40 of the words to see how you have done.

### Word list – years 5 and 6

accommodate	embarrass	persuade
accompany	environment	physical
according	equip (–ped, –ment)	prejudice
achieve	especially	privilege
aggressive	exaggerate	profession
amateur	excellent	programme
ancient	existence	pronunciation
apparent	explanation	queue
appreciate	familiar	recognise
attached	foreign	recommend
available	forty	relevant
average	frequently	restaurant
awkward	government	rhyme
bargain	guarantee	rhythm
bruise	harass	sacrifice
category	hindrance	secretary
cemetery	identity	shoulder
committee	immediate(ly)	signature
communicate	individual	sincere(ly)
community	interfere	soldier
competition	interrupt	stomach
conscience*	language	sufficient
conscious*	leisure	suggest
controversy	lightning	symbol
convenience	marvellous	system
correspond	mischievous	temperature
criticise (critic + ise)	muscle	thorough
curiosity	necessary	twelfth
definite	neighbour	variety
desperate	nuisance	vegetable
determined	occupy	vehicle
develop	occur	yacht
dictionary	opportunity	
disastrous	parliament	

## Foundation Topic Work (for the week)

Our topic for computing this half-term is *binary*. This is a coding system that computers use to store and process information. Your job this week is to complete 3 tasks in this order:

1. Presentation: What is binary?
2. Converting to binary guide
3. Convert to binary quiz

All 3 have been set as 'to-dos' on Purple Mash.

## Diary

Write a diary of what work and activities you did today. Remember to include your thoughts, feelings and opinions.