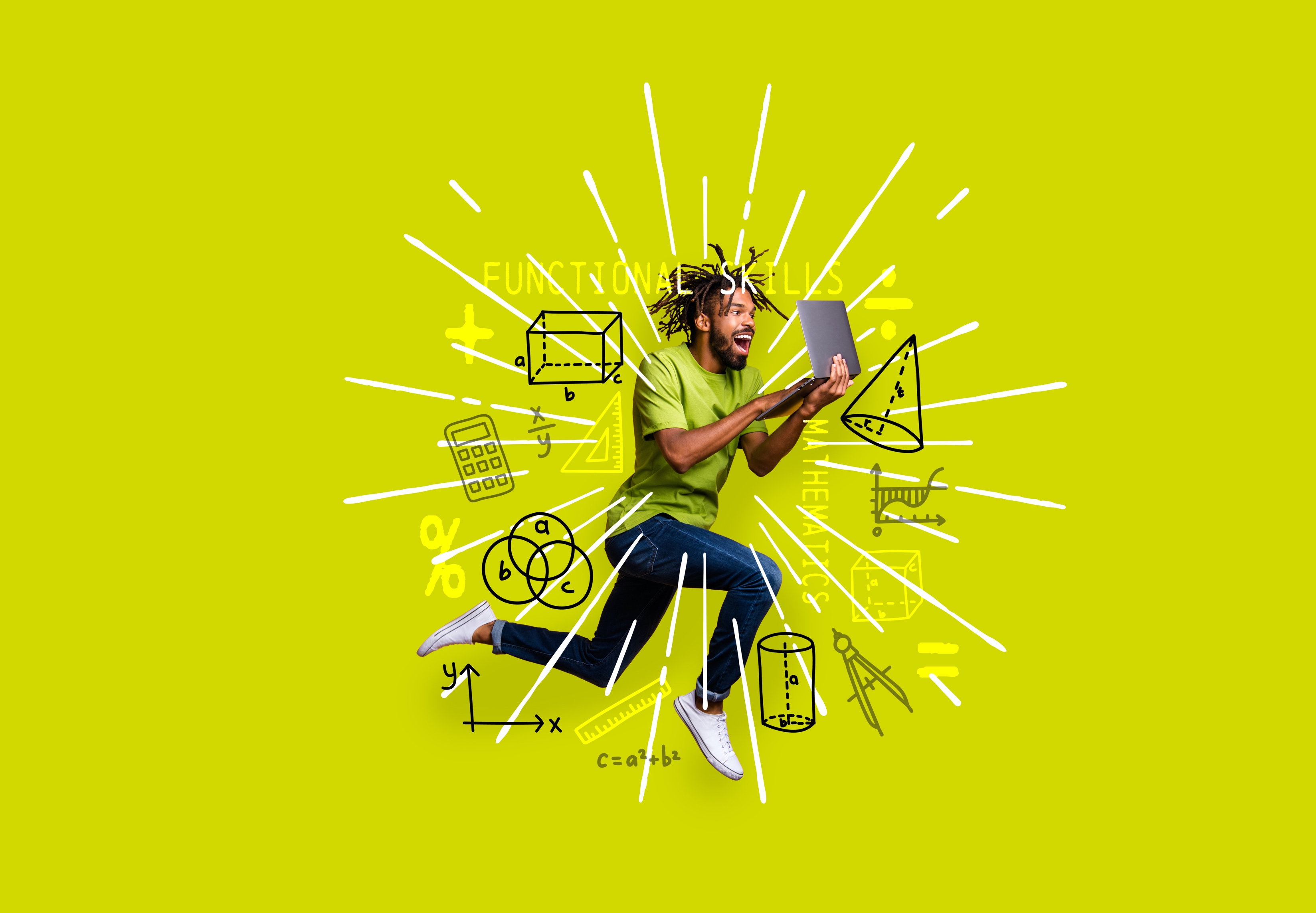
Logo

Description automatically generated

**FUNCTIONAL SKILLS**

Maths Level 2



**2. Carry out** **calculations with numbers up to one million including strategies to check answers including estimation and approximation**

**Calculations with numbers up to 1million**

You may be presented with questions that contain real-life problems and may not always be told which calculation to use. Therefore, it is important to read the question very carefully as you will need to interpret which calculation to use.

**Example:**

Sarah has **£500**. She needs to pay her council tax bill which is **£180** and her electricity bill which is **£253**. She also wants to buy a new pair of shoes for **£60**.

Will Sarah have enough money left to buy the shoes once she has paid her bills?

**Explain your answer.**

You will need to subtract £180 and £253 from £500, then see how much is left.

500 – 180 – 253 = **63**

Sarah has **£63** left once she has paid her bills so, yes, she does have enough left over to buy the shoes.

**Addition (+) and Subtraction (-)**

You will also need to be able to add and subtract without using a calculator.

**Example of an addition sum:**

Last month, **22,382** passengers flew to Greece and **112,958** flew to Spain.

How many passengers flew to both Greece and Spain in the last month?

**112958**

**+ 22382**

**135340**

**135,340** passengers flew to both Greece and Spain last month.

**Addition (+) and Subtraction (-)**

**Example of a subtraction sum:**

What is 510,657 – 87,151?

**510657**

**- 87151**

**423506**

510,657 – 87,151 = **423,506**

A picture containing text, clipart

Description automatically generatedLine up the columns and subtract the columns from   
right to left. Remember to borrow from the left when   
the top number is smaller than the bottom number.

**Checking your answers**

Adding and subtracting are the opposite calculations of each other. Once you have your answer, you can then check if you are correct by using the opposite calculation.

If your answer is correct, you should return to the number you started with**.**

**Example:**

What is 94 + 23 = 117

Use the opposite calculation to check your answer:

**117 – 23 = 94**

**or**

**117 – 94 = 23**

A picture containing text, clipart

Description automatically generated

To show that you have checked your answer you only   
need to demonstrate 1of the methods highlighted.

**Using the information provided, work out the answers to the following questions.**

**Question 1a**

Calculate 352,837 + 28,639

(Show your working out)

|  |
| --- |
|  |

**Question 1b**

Show how you check your answer to Question 1a.

(Show your working out)

|  |
| --- |
|  |

**Question 2a**

Calculate 47,596 + 2,405,679

(Show your working out)

|  |
| --- |
|  |

**Question 2b**

Show how you check your answer to Question 2a.

(Show your working out)

|  |
| --- |
|  |

**Question 3a**

Calculate 381,476 – 28,639

(Show your working out)

|  |
| --- |
|  |

**Question 3b**

Show how you checked your answer to Question 3a.

(Show your working out)

|  |
| --- |
|  |

**Multiplying (x) and Dividing (÷)**

Some questions may involve multiplication and division.

As with addition and subtraction, you won’t always be told which calculation to use.

**Example:**

Mark needs to buy **200** large envelopes for the office at **57p** each.

How much money does Mark need?

**Answer:**

Each envelope costs 57p. So, you need to calculate **200 x 0.57.**

**200 x 0.57 = £114**

**Multiplying (x) and Dividing (÷)**

For the non-calculator part, you may also need to know how to multiply and divide without using a calculator.

**Example:**

A group of 4employees place the same numbers on the lottery every week. This week, they match 5numbers and win **£156,400**. How much will each employee receive?

**Answer:**

£156,400 divided by 4 employees.

156,400 **÷** 4 = 39,100

**Each employee will receive £39,100.**

**Checking your answer**

As with addition and subtraction, multiplying and division are also opposites.

To check your answer is correct, use the opposite calculation.

**Example:**

What is 43 x 8?

**Answer:**

43 x 8 = 344

**Opposite calculations to check your answer:**

344 ÷ 8 = 43 or 344 ÷ 43 = 8

A picture containing text, clipart

Description automatically generated

To show that you have checked your answer you only need to demonstrate 1of the methods highlighted.

**Question 4a**

Calculate 477,138 ÷ 562

(Show your working out)

|  |
| --- |
|  |

**Question 4b**

Show how you checked your answer to Question 4a.

(Show your working out)

|  |
| --- |
|  |

**Question 5a**

Calculate 452 x 9

(Show your working out)

|  |
| --- |
|  |

**Question 5b**

Show how you checked your answer to Question 5b.

(Show your working out)

|  |
| --- |
|  |

Icon

Description automatically generated

**Exam Question 1a – Calculator**

Last month, **125,982** passengers used the local bus service to travel from the   
town high street to a local village and **12,958** used a local taxi to carry out the  
 same journey.

Calculate how many more passengers used the bus service than a taxi to travel.

(Show your working out and write the answer in the box below).

***(4 marks)***

|  |
| --- |
|  |

**Question 1b**

Use a reverse calculation to check your answer to Question 1a.

(Show your working out)

***(1 mark)***

|  |
| --- |
|  |

A picture containing text, clipart

Description automatically generated

**Exam Question 2 - Non-calculator**

Calculate 147,206 – 95,438

(Show your working out and write the answer in the box below).

***(1 mark)***

|  |
| --- |
|  |

**Your functional skills exam**

Your functional skills exams will consist of 2 papers.   
These papers will take place over the following time periods:

* calculator paper – 40 minutes
* non-calculator – 1 hour 50 minutes

Further information on the format that your test will take can be obtained from your training provider.

**Hints and tips**

* Find out what format your exam will be in. It may be paper-based   
  or on-screen.
* Plan what you are going to revise in advance. Don’t leave it until the last minute.
* Do as many past papers as you can so you are prepared for the day. If possible, try to complete the past papers following the same format as the actual exam.
* Find a quiet place to study and revise. It helps to sit at a table or a desk, and don’t revise in bed.
* Don’t stay up all night revising the night before your exam. It’s important to have a good rest so you feel refreshed and ready to go.
* Read the question 3 times. The first time to ensure you understand what is being asked, the second time to get an understanding of what you need to do, and a third time to figure out exactly what maths techniques you should be applying.
* If you are struggling with a question, skip it and come back to it later. Try not to sit getting worked up about a difficult question, it will only waste exam time. Move on and come back to it after you have answered the other questions.
* Take note of the number of marks available. This will give you an indication of how much working out you must show. For example, for 1 mark will need an answer only and for more marks will need you to show your working out.
* When you’ve finished the exam, go back and check your answers. If you still have time remaining, use it to check your answers and when you have checked your answers, check them again.