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**FUNCTIONAL SKILLS**

Maths Level 1



**Area: Numbers and the number system**

Criterion 1: Read, write, order and compare large numbers (up to one million)

**Place value**

Place value shows how much a digit is worth in a number.

Each digit has a place value depending on where it is in the number.

This place value chart shows the value 1,000,000 (or one million).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Millions** | **Hundred thousands** | **Ten thousands** | **Thousands** | **Hundreds** | **Tens** | **Ones** |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 |

There are 3 steps we can use to help us identify place value.

**Step 1: learn the place value names.** Ones, tens, hundreds, thousands, ten thousands, hundred thousands and so on.

**Step 2: identify digit positions using place value.**

It may help you to draw out a place value grid during your exam.

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| --- | --- | --- | --- | --- | --- | --- |
| **Millions** | **Hundred thousands** | **Ten thousands** | **Thousands** | **Hundreds** | **Tens** | **Ones** |
|  | 5 | 6 | 9 | 2 | 4 | 1 |

In the number 569,241:

* the 5 is in the hundred thousands place (500,000)
* the 6 is in the ten thousands place (60,000)
* the 9 is in the thousands place (9,000)
* the 2 is in the hundreds place (200)
* the 4 is in the tens place (40)
* the 1 is in the ones, or units, place (1)

**Step 3: remember that place value changes.** The value of a digit increases as it moves to the left in a number.

For example,

A 5 in the ones column is worth 5.

A 5 in the tens column is worth 50, which is bigger than 5.

A 5 in the hundreds column is worth 500, which is larger still, and so on.

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| --- | --- | --- | --- | --- | --- | --- |
| **Millions** | **Hundred thousands** | **Ten thousands** | **Thousands** | **Hundreds** | **Tens** | **Ones** |
|  |  |  |  |  |  | 5 |
|  |  |  |  |  | 0 | 0 |
|  |  |  |  | 5 | 0 | 0 |

**Question 1**

Write the value of each digit in the following numbers:

a) 93,014

b) 685,529

c) 909,020

|  |
| --- |
|  |

**Question 2**

What is the value of the digit **9** in the following numbers:

a) 6,914

b) 123,090

c) 691,101

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**Reading and writing numbers (up to one million)**

**Reading numbers**

Large numbers can be tricky to read because of the number of digits involved.

Numbers can go up to one million. One million is written as 1,000,000.

It has 7 digits.

There are 3 steps we can use to help us recognise and read large numbers.

**Step 1: start from the left.**

Begin reading the number from the largest place value.

**Step 2: break it into groups**.

Large numbers are divided into groups of three digits.

*345,678*

*Three hundred and forty-five thousand, six hundred seventy-eight.*

When we say this number, we say the thousands together and then the hundreds, tens and ones together.

**Step 3: use commas**.

Commas separate groups of three digits to help you read large numbers more easily.

*876,543*

In the number above, the hundred thousands, ten thousands and thousands are first grouped together and then followed by a comma.

We would read this first section as***eight hundred and seventy-six thousand***.

Next, the hundreds, tens and ones are grouped together at the end of the number.

We would read this second section as ***five hundred and forty-three****.*

Therefore, this number is read as ***eight hundred and seventy-six thousand, five hundred and forty-three***.

Remember, when you use commas to separate groups of three digits, start from the right.

**Writing numbers**

Learners need to be able to write numbers in both digits and words.

For example, *876,543**is read as eight hundred and seventy-six thousand, five hundred and forty-three*.

**Writing numbers in digits**

Start from the largest place value and write each digit in the correct place.

*Four hundred and fifty-three thousand, two hundred*.

* First, write the thousands (453)
* Next, add a comma
* Finally, write the hundreds, tens and ones (200)

*453,200*

**Writing numbers in words**

Write the number as you would say it aloud.

710,103

Seven hundred and ten thousand, one hundred and three.

**Top tip**

Check for zeroes. If there is a zero in the number, make sure you don’t skip any place values when writing it in words.

For example, five hundred and nine thousand and twelve: 509,012

If we forget the zeroes, the number will be incorrect: 5,912

Below is an example question.

*The population in Highfield Town is* ***nine-hundred thousand and fifty-seven****.*

*A doctor’s surgery has* ***four-hundred thousand*** *people registered at the practice.*

*How many people in Highfield Town are* ***not*** *registered at the doctor’s surgery?*

To answer this question, we would need to read the numbers and then write them in figures (or digits) before completing the calculations.

*Answer: 900,057 – 400,000 = 500,057*

**Question 3**

Write the following number in digits:

***nine hundred and sixty-eight thousand, three hundred and twelve***

(1 mark)

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**Question 4**

Write the following number in figures:

***nine hundred and ninety-nine thousand, nine hundred and ninety-nine***

(1 mark)

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**Question 5**

Write the number ***345,708*** in words.

(1 mark)

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**Question 6**

Write the number ***898,354*** in words.

(1 mark)

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**Ordering and comparing numbers (up to one million)**

**Ordering numbers**

Ordering numbers means arranging them from:

* smallest to largest (ascending)
* largest to smallest (descending)

Let’s look at an example.

Write these numbers in order from **smallest to largest**.

658,514

9,851

99,951

625,854

**Step 1: line up the numbers.**

Place the numbers below one another with their place values lined up. This means ones under ones, tens under tens, and so on. You can draw a place value table to help you if you need to.

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| --- | --- | --- | --- | --- | --- | --- |
| **Millions** | **Hundred thousands** | **Ten thousands** | **Thousands** | **Hundreds** | **Tens** | **Ones** |
|  | 6 | 5 | 8 | 5 | 1 | 4 |
|  |  |  | 9 | 8 | 5 | 1 |
|  |  | 9 | 9 | 9 | 5 | 1 |
|  | 6 | 2 | 5 | 8 | 5 | 4 |

**Step 2: look for the difference.**

Compare the same place value in each number. If you are ordering numbers from largest to smallest, start by looking at the biggest place value. This means looking from left to right. If you’re ordering from the smallest, check to see which number has less digits and place values.

In our example, we are ordering from **smallest to largest**. We need to look for the number with the least digits.

9,851 only has 4 digits. Its highest place value is thousands. All the other numbers have ten thousands or hundred thousands.

Therefore, 9,851 is the smallest.

Next, we can see that 99,951 has 5 digits. Both of the other numbers left have 6 digits.

99,951 is the second smallest.

**Step 3: check all digits if needed.**

If the place values are the same, keep comparing the next digits until you find a difference.

In our example, both 658,514 and 625,854 have hundred thousands.

They both have 6 hundred thousands, so we need to move to the right and compare the next place value, which is the ten thousands.

* 658,514 has 5 ten thousands
* 625,854 has 2 ten thousands

Therefore, 625,854 is smaller than 658,514

Our final answer, from **smallest to largest**, is:

9,851

99,951

625,854

658,514

**Question 7**

Write these numbers in order from **smallest to largest**.

59,754

153,550

105,005

56,845

(1 mark)

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**Question 8**

Order these numbers from **largest to smallest**.

193,564

187,810

720,977

727,111

(1 mark)

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**Question 9**

Order these numbers from **largest to smallest**.

596,530

70,434

91,050

295,494

(1 mark)

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**Comparing numbers**

Learners need to be able to compare 2 or more numbers and decide which is larger or smaller. When we are comparing numbers, we use the following symbols:

**> greater than**

If the first number is greater than the second number, the greater than symbol (>) is used. For example:

9 > 7

9 is greater than 7

**< less than**

If the first number is less than the second number, the less than symbol (<) is used. For example:

8 < 11

8 is less than11

**= equal to**

The equals symbol (=) is used if both numbers are the same. For example:

6 = 6

6 is equal to 6

**Top tips:** the open part of the symbols always faces the larger number. The equals sign is used to show that 2 numbers are the same.

To compare numbers, follow the steps we used for ordering numbers.

For example,

Use **<** or **>** to complete the following:

36,467 \_\_\_ 35,467

**Step 1: line up the numbers.**

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| --- | --- | --- | --- | --- | --- | --- |
| **Millions** | **Hundred thousands** | **Ten thousands** | **Thousands** | **Hundreds** | **Tens** | **Ones** |
|  |  | 3 | 6 | 4 | 6 | 7 |
|  |  | 3 | 5 | 4 | 6 | 7 |

Place the numbers below one another with their place values lined up.

**Step 2: look for the difference.**

Compare the same place value in each number, starting from the left. If one number has a place value that is larger, that number is larger. In our example, we can see that the highest value is the ten thousands, and they are the same.

**Step 3: check all digits if needed.**

If the place values are the same, keep comparing the next digits until you find a difference. In our example, the ten thousands were both the same. Therefore, we would move on to compare the thousands.

36,467 has 6 thousands, whereas 35,467 has 5 thousands.

36,467 is larger than 35,467

**36,467 > 35,467**

**Question 10**

Use **<** or **>** to compare the following numbers:

437,334 and 447,344

(1 mark)

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**Question 11**

Use **<** or **>** to compare the following numbers:

126,412 and 127,421

(1 mark)

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**Question 12**

Use **<** or **>** to compare the following numbers:

981,039 and 980,139

(1 mark)

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**Exam practice 1**

A company has products in 2 warehouses.

Warehouse A holds 458,230 products.

Warehouse B holds five hundred and twenty-nine thousand, eight hundred and seventy-six products.

**Which warehouse has more products?**

**How many more products do they have?**

(Show your working out.)

(4 marks)

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**Exam practice 2**

Emma is reading a book with 325,874 words. She has read 178,250 words so far.

How many words does she have left to read?

Write your answer in **words**.

(Show your working out.)

(3 marks)

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**Exam practice 3**

Place the following numbers in order from **largest to smallest**:

356,298 782,610 463,509 915,782 219,763

(Show your working out.)

(1 mark)

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**Exam practice 4**

Ellie scores 672,548 in a competition.

Leah scores 672,485.

Who has the **highest** score? Use **<** or **>** in your answer.

(Show your working out.)

(2 marks)

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**Answers**

**Place value**

**Question 1**

Write the value of each digit in the following numbers:

a) 93,014

90,000 or 9 ten thousands

3,000 or 3 thousands

0 hundreds

10 or 1 ten

4 or 4 ones/units

b) 685,529

600,000 or 6 hundred thousands

80,000 or 8 ten thousands

5,000 or 5 thousands

500 or 5 hundreds

20 or 2 tens

9 or 9 ones/units

c) 909,020

900,000 or 9 hundred thousands

0 ten thousands

9,000 or 9 thousands

0 hundreds

20 or 2 tens

0 ones/units

**Question 2**

What is the value of the digit **9** in the following numbers:

a) 6,914

900 or 9 hundreds

b) 123,090

90 or 9 tens

c) 691,101

90,000 or 9 ten thousands

**Reading and writing numbers**

**Question 3**

968,312

**Question 4**

999,999

**Question 5**

Three hundred and forty-five thousand, seven hundred and eight.

**Question 6**

Eight hundred and ninety-eight thousand, three hundred and fifty-four.

**Ordering numbers**

**Question 7**

56,845

59,754

105,005

153,550

**Question 8**

727,111

720,977

193,564

187,810

**Question 9**

596,530

295,494

91,050

70,434

**Comparing numbers**

**Question 10**

437,334 **<** 447,344

**Question 11**

126,412 **<** 127,421

**Question 12**

981,039 **>** 980,139

**Exam practice**

**Exam practice 1**

1 mark is awarded for writing the number in figures.

* Five hundred and twenty-nine thousand, eight hundred and seventy-six = 529,876

1 mark is awarded for stating which warehouse has more products.

* Warehouse B

1 mark is awarded for the correct method.

* Learners need to use subtraction to find the difference

1 mark is awarded for accurate calculation.

* 529,876 - 458,230 = 71,646

**Exam practice 2**

1 mark is awarded for the correct method.

* Learners need to use subtraction to find how many pages are left

1 mark is awarded for accurate calculation.

* 325,874 - 178,250 = 147,624

1 mark is awarded for writing the number in figures.

* One hundred and forty-seven thousand, six hundred and twenty-four

**Exam practice 3**

915,782  
782,610  
463,509  
356,298  
219,763

**Exam practice 4**

1 mark is awarded for correctly stating who has the highest score.

* Ellie has the highest score because 672,548 is larger than 672,485.

1 mark is awarded for using the correct symbol.

* 672,548 **>** 672,485

OR

* 672,485 **<** 672,548

**Your functional skills exam**

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

* Non-calculator paper – 40 minutes
* 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, 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, 1 mark will need an answer only and 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.