

Name:



## Maths Assessment Year 6: Number and Place Value

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1. Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.
2. Round any whole number to a required degree of accuracy.
3. Use negative numbers in context, and calculate intervals across zero.
4. Solve number and practical problems.

Name:

Date:

## Maths Assessment Year 6: Number and Place Value

1. Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.

a) Fill in the missing boxes:

Number in digits	Number in words
	One million, six hundred and thirty-three thousand, four hundred and fifty
3 905 231	
	Five million, one hundred and ninety-four thousand, eight hundred and two
2 730 867	

b) Order these numbers from smallest to largest:

1 912 678	192 508	534 176	2 317 302	91 459	37 916

c) Compare the numbers below using  $<$   $>$  or  $=$  :

	$<$ $>$ or $=$	
6 678 543		6 786 534
5 454 163		4 451 463
2 342 781		2 342 781

d) In the numbers below, **circle the digit** that is worth the amount written in words:

2 347 302	Three hundred
8 983 582	Eighty
124 463	Four thousand
5 759 474	Seven hundred thousand

4 marks

1 mark

1 mark

4 marks

Total for this page

2. Round any number to a required degree of accuracy.

a) Round these numbers to the **nearest ten**:

Number	Rounded to the nearest ten
8 235 678	
5 166 312	

2 marks

b) Round these numbers to the **nearest hundred**:

Number	Rounded to the nearest hundred
3 547 850	
6 987 022	

2 marks

c) Round these numbers to the **nearest thousand**:

Number	Rounded to the nearest thousand
2 370 100	
5 867 499	

2 marks

d) Round these numbers to the **nearest ten thousand**:

Number	Rounded to the nearest ten thousand
8 464 122	
9 804 671	

2 marks

e) Round these numbers to the nearest hundred thousand:

Number	Rounded to the nearest hundred thousand
1 443 522	
7 804 671	

2 marks

Total for this page

3. Use negative numbers in context, and calculate intervals across zero.

a) Continue this number sequence:

7	5	3	1				
---	---	---	---	--	--	--	--

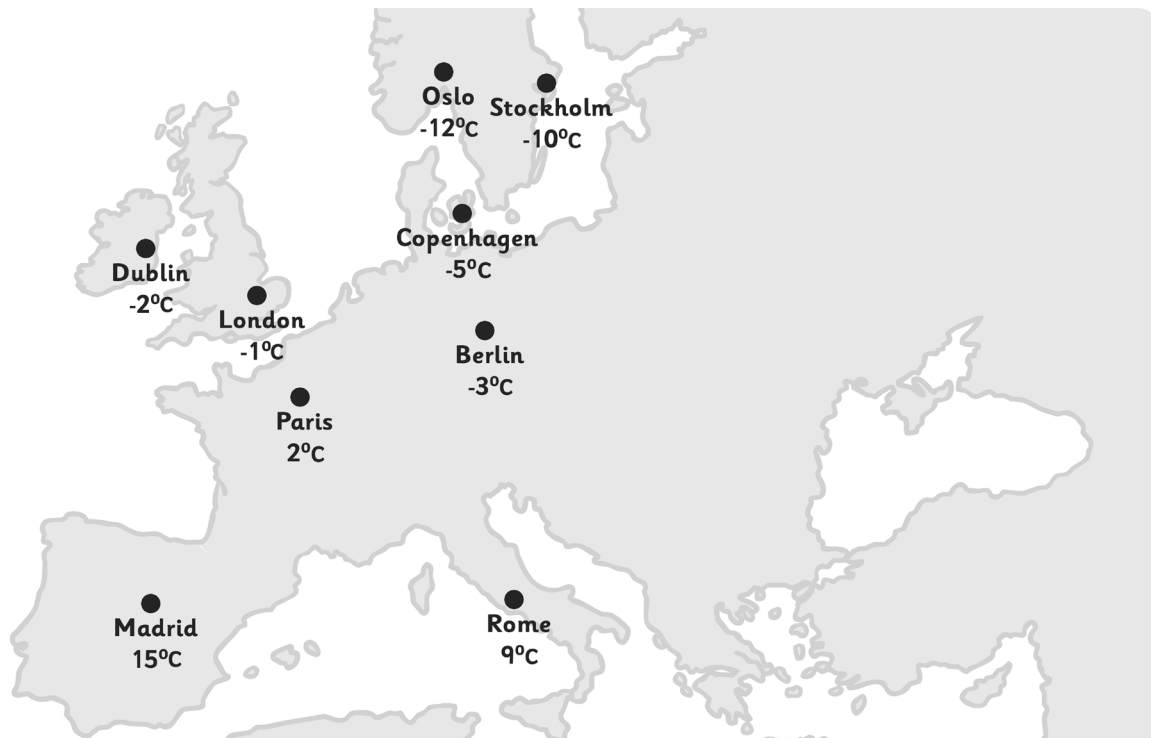
1 mark

b) Continue this number sequence:

12	8	4	0				
----	---	---	---	--	--	--	--

1 mark

c) This map shows the temperature of different places in Europe:



Which place has the coldest temperature?	
Which place has the warmest temperature?	
What is the difference in the temperatures in Stockholm and Rome?	°C
What is the difference in the temperatures in Dublin and Copenhagen?	°C
The temperature in Paris decreases by 5°C. What is the new temperature?	°C
The temperature in London increases by 6°C. What is the new temperature?	°C
The temperature in Oslo increases by 4°C. What is the new temperature?	°C
The temperature in Berlin decreases by 3°C. What is the new temperature?	°C

8 marks

Total for this page

4. Solve number and practical problems.

This chart shows the population of different cities in the UK.

a) Round each number to the nearest ten thousand.

City	Population	Rounded to the nearest ten thousand
Birmingham	1 092 330	
London	8 615 246	
Manchester	502 900	
Cardiff	346 100	
Glasgow	596 550	
Edinburgh	487 501	

6 marks

b) Write the cities in order based on their population, from smallest to largest:

Smallest	
Largest	

1 mark

c) Use the symbols  $<$ ,  $>$  or  $=$  to compare the size of these cities' populations:

	$<$ $>$ or $=$	
Birmingham		London
Glasgow		Edinburgh
Manchester		Cardiff

3 marks

Total for this page

question	answer	marks	notes												
<b>1. Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.</b>															
a	<table border="1"> <thead> <tr> <th>number in digits</th> <th>number in words</th> </tr> </thead> <tbody> <tr> <td>1 633 450</td> <td>One million, six hundred and thirty-three thousand, four hundred and fifty</td> </tr> <tr> <td>3 905 231</td> <td>Three million, nine-hundred and five thousand, two hundred and thirty-one</td> </tr> <tr> <td>5 194 802</td> <td>Five million, one hundred and ninety-four thousand, eight hundred and two</td> </tr> <tr> <td>2 730 867</td> <td>Two million, seven-hundred and thirty thousand, eight hundred and sixty-seven</td> </tr> </tbody> </table>	number in digits	number in words	1 633 450	One million, six hundred and thirty-three thousand, four hundred and fifty	3 905 231	Three million, nine-hundred and five thousand, two hundred and thirty-one	5 194 802	Five million, one hundred and ninety-four thousand, eight hundred and two	2 730 867	Two million, seven-hundred and thirty thousand, eight hundred and sixty-seven	4	One mark for each box correctly filled in.  When writing numbers in words, accept incorrect spellings as long as the intention is clear, however don't accept the digits written just as words, eg one six three three four five zero.		
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	1 633 450	One million, six hundred and thirty-three thousand, four hundred and fifty													
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		< > or =													
	6 678 543	<	6 786 534												
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d	<table border="1"> <tbody> <tr> <td>2 347 <u>3</u>02</td> <td>Three hundred</td> </tr> <tr> <td>8 983 <u>5</u>82</td> <td>Eighty</td> </tr> <tr> <td>12<u>4</u>463</td> <td>Four thousand</td> </tr> <tr> <td>5<u>7</u>59 474</td> <td>Seven hundred thousand</td> </tr> </tbody> </table>	2 347 <u>3</u> 02	Three hundred	8 983 <u>5</u> 82	Eighty	12 <u>4</u> 463	Four thousand	5 <u>7</u> 59 474	Seven hundred thousand	4	One mark for each digit correctly circled.				
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question	answer		marks	notes
d	Number	Rounded to the ten thousand	2	One mark for each number correctly written.
	8 464 122	8 460 000		
	9 804 671	9 800 000		
e	Number	Rounded to the hundred thousand	2	
	1 443 522	1 400 000		
	7 804 671	7 800 000		

**3. Use negative numbers in context, and calculate intervals across zero.**

a	7	5	3	1	-1	-3	-5	-7	1	1 mark for all numbers in the sequence correctly identified. Do not accept negative numbers without the correct symbol.
b	12	8	4	0	-4	-8	-12	-16	1	
c	Which place has the coldest temperature?		Oslo						8	One mark for each correct answer. Ensure negative / positive numbers do / do not have the correct symbol as appropriate.
	Which place has the warmest temperature?		Madrid							
	What is the difference in the temperatures in Stockholm and Rome?		19°C							
	What is the difference in the temperatures in Dublin and Copenhagen?		3°C							
	The temperature in Paris decreases by 5°C. What is the new temperature?		-3°C							
	The temperature in London increases by 6°C. What is the new temperature?		5°C							
	The temperature in Oslo increases by 4°C. What is the new temperature?		-8°C							
	The temperature in Berlin decreases by 3°C. What is the new temperature?		-6°C							

**4. Solve number and practical problems.**

a	City	Population	Rounded to the nearest ten thousand	6	One mark for each correct answer.
	Birmingham	1 092 330	1 090 000		
	London	8 615 246	8 620 000		
	Manchester	502 900	500 000		
	Cardiff	346 100	350 000		
	Glasgow	596 550	600 000		
	Edinburgh	487 501	490 000		

question	answer		marks	notes	
b	smallest	Cardiff	1	One mark for all cities correctly put into order.	
		Edinburgh			
		Manchester			
		Glasgow			
		Birmingham			
	largest	London			
c		< > or =	3	One mark for each correct symbol.	
	Birmingham	<			London
	Glasgow	>			Edinburgh
	Manchester	>			Cardiff
			Total 40		