

Name:



Maths Assessment Year 5: Number and Place Value

1. Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.
2. Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.
3. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.
4. Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.
5. Solve number problems and practical problems.
6. Read Roman numerals to 1000 and recognise years written in Roman numerals.

Name:

Date:

Maths Assessment Year 5: Number and Place Value

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

a) Fill in the missing boxes:

Number in digits	Number in words
	Thirty thousand, three hundred and five
370 350	
12 009	
	Sixty two thousand, five hundred and eleven
101 220	

b) Order these numbers from largest to smallest:

23 004	16 210	10 050	42 901	42 781	18 656
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c) Compare the numbers below using $<$ or $>$.

	$<$ or $>$	
12 451		12 541
45 007		43 091
123 432		121 445

d) In each number say the value of the underlined digit:

number	value of the underlined digit
123 <u>4</u> 53	
<u>5</u> 40 238	
54 8 <u>9</u> 1	
7 <u>4</u> 3 211	

5 marks

1 mark

3 marks

4 marks

Total for this page

2. Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.

a) Count forwards in the steps shown from each number:

count on in steps of	starting number				
10	12 458				
100	123 434				
1000	321 212				

3 marks

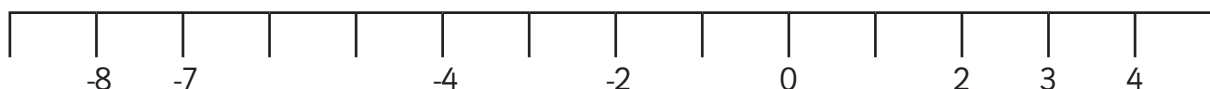
b) Count backwards in the steps shown from each number:

count back in steps of	starting number				
10	21 482				
100	451 671				
1000	219 398				

3 marks

3. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.

a) Fill in the missing numbers on this number line:



1 mark

b) This chart shows the temperatures of different cities around the world. Order the cities from coldest to warmest:

City	maximum temperature		coldest	
Palma	21° C			
London	13° C			
Vostok	-3° C			
Mumbai	30° C			
Calgary	-11° C			
Moscow	5° C		warmest	

1 mark

Total for this page

c) How much colder is it in Calgary than London?

1 mark

4. Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.

a) Round these numbers to the nearest 10

41 236	
876 212	

2 marks

b) Round these numbers to the nearest 100:

32 134	
174 865	

2 marks

c) Round these numbers to the nearest 1000:

42 379	
812 532	

2 marks

d) Round these numbers to the nearest 10 000:

78 890	
321 432	

2 marks

e) Round these numbers to the nearest 100 000:

524 100	
669 210	

2 marks

Total for this page

5. Solve number problems and practical problems.

This table shows information about some of the planets:

Planet	Diameter	Time taken to orbit the Sun	Time taken to rotate on its axis
Mercury	4 876 km	88 days	33 408 minutes
Venus	12 107km	225 days	349 920 minutes
Earth	12 755 km	365 days	1440 minutes
Mars	6 794 km	687 days	1440 minutes
Saturn	120 536 km	10 759 days	240 minutes
Neptune	49 527 km	60 190 days	384 minutes

Look at the table above.

Answer these problems about the planets:

a) Order the planets by diameter size, starting with the smallest:

smallest in diameter

largest in diameter

b) Circle True or False for each planet, when rounded to the nearest 100 days to orbit the Sun:

Mercury: 100 days	True or False
Venus: 220 days	True or False
Earth: 360 days	True or False
Mars: 700 days	True or False
Saturn: 10 700 days	True or False
Neptune: 60 200 days	True or False



1 mark



3 marks



Total for this page

- c) Jassi says that it takes Venus 31 512 more minutes to rotate on its axis than Mercury. Do you think this seems a sensible answer? Don't do the actual calculation but show an approximation to show whether this is a sensible answer or not.

Sensible answer: Yes / No (Circle)

Approximation to show why you think this:

1 mark

6. Read Roman numerals to 1000 and recognise years written in Roman numerals.

- a) Fill in missing numbers

350	
	DLV
212	
	CCLIII
419	



5 marks

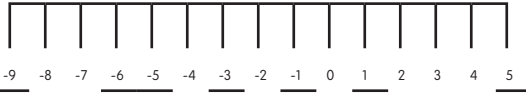
- b) The years these films were released are written in Roman numerals. Write the years how you would usually write them in digits:

Jetsons: the Movie	MCMXC	
Shrek	MMI	
Frozen	MMXIII	



3 marks

Total for this page

question	answer	marks	notes												
1. Read, write, order and compare numbers to at least 1 000 000 and determine the value of each.															
a	<table><tr><td>30 305</td><td>Thirty thousand, three hundred and five</td></tr><tr><td>370 350</td><td>Three hundred and seventy thousand, three hundred and fifty</td></tr><tr><td>12 009</td><td>Twelve thousand and nine</td></tr><tr><td>62 511</td><td>Sixty two thousand, five hundred and eleven</td></tr><tr><td>101 220</td><td>One hundred and one thousand, two hundred and twenty</td></tr></table>	30 305	Thirty thousand, three hundred and five	370 350	Three hundred and seventy thousand, three hundred and fifty	12 009	Twelve thousand and nine	62 511	Sixty two thousand, five hundred and eleven	101 220	One hundred and one thousand, two hundred and twenty	up to 5 marks	When writing numbers in words, accept incorrect spellings as long as it can be decoded but don't accept just the digits written eg three seven nine		
30 305	Thirty thousand, three hundred and five														
370 350	Three hundred and seventy thousand, three hundred and fifty														
12 009	Twelve thousand and nine														
62 511	Sixty two thousand, five hundred and eleven														
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b	<table><tr><td>42 901</td><td>42 781</td><td>23 004</td><td>18 656</td><td>16 210</td><td>10 050</td></tr></table>	42 901	42 781	23 004	18 656	16 210	10 050	1							
42 901	42 781	23 004	18 656	16 210	10 050										
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12 451	<	12 541													
45 007	>	43 091													
123 432	>	121 445													
d	<table><tr><td>123 453</td><td>4 hundred (s) or 400</td></tr><tr><td>540 238</td><td>500 thousand or 500 000</td></tr><tr><td>54 891</td><td>90 or 9 tens</td></tr><tr><td>743 211</td><td>40 thousand(s) or 40 000</td></tr></table>	123 453	4 hundred (s) or 400	540 238	500 thousand or 500 000	54 891	90 or 9 tens	743 211	40 thousand(s) or 40 000	4					
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2. Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.															
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12 468	12 478	12 488	12 498												
123 534	123 634	123 734	123 834												
322 212	323 212	324 212	325 212												
b	<table><tr><td>21 472</td><td>21 462</td><td>21 452</td><td>21 442</td></tr><tr><td>451 571</td><td>451 471</td><td>451 371</td><td>451 271</td></tr><tr><td>218 398</td><td>217 398</td><td>216 398</td><td>215 398</td></tr></table>	21 472	21 462	21 452	21 442	451 571	451 471	451 371	451 271	218 398	217 398	216 398	215 398	3	
21 472	21 462	21 452	21 442												
451 571	451 471	451 371	451 271												
218 398	217 398	216 398	215 398												
3. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.															
a		1													
b	<table><tr><td>coldest</td><td>Calgary</td></tr><tr><td></td><td>Vostok</td></tr><tr><td></td><td>Moscow</td></tr><tr><td></td><td>London</td></tr><tr><td></td><td>Palma</td></tr><tr><td>warmest</td><td>Mumbai</td></tr></table>	coldest	Calgary		Vostok		Moscow		London		Palma	warmest	Mumbai	1	
coldest	Calgary														
	Vostok														
	Moscow														
	London														
	Palma														
warmest	Mumbai														
c	24 °	1													

question	answer		marks	notes
4. Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.				
a	41 236	41 240	2	
	876 212	876 210		
b	32 134	32 100	2	
	174 865	174 900		
c	42 379	42 000	2	
	812 532	813 000		
d	78 890	80 000	2	
	321 432	320 000		
e	524 100	500 000	2	
	669 210	700 000		
5. Solve number problems and practical problems that involve all of the above.				
a	smallest in diameter	Mercury	1	
		Mars		
		Venus		
		Earth		
		Neptune		
	largest in diameter	Saturn		
b	Mercury	True	up to 3 marks	1 or 2 correct = 1 mark 3 or 4 correct = 2 marks 5 or 6 correct = 3 marks
	Venus	False		
	Earth	False		
	Mars	True		
	Saturn	False		
	Neptune	True		
c	Circle around No, with a sensible estimate of the actual calculation Eg 350 000 – 33 000 = 317 000		1	Do not give a mark if No is circled but no estimation
6. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.				
a	350	CCCL	5	
	555	DLV		
	212	CCXII		
	253	CCLIII		
	419	CDXIX		

question	answer		marks	notes
b	Jetsons: the Movie	1990	3	
	Shrek	2001		
	Frozen	2013		
			Total 45	