

# Mathematics Lesson Plan

## GRADE 5

DATE: .....

### CONCEPTS AND SKILLS ACHIEVED:

#### Gr 4:

Gr 4 work will be consolidated for the first 4 days.

At the end of the first four days, learners must understand the following Grade 4 work and be able to:



- Write number names and identify number symbols (single and compound)
- Count in hundreds, tens and ones.
- Build up and break down numbers.
- Write numbers in extended notation
- Represent and order numbers.

#### Gr 5:

At the end of the week, learners must understand and be able to:

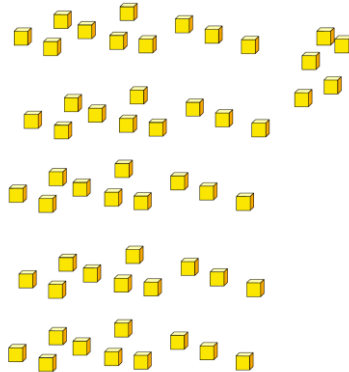
- Arrange numbers, compare and represent numbers to at least 6-digit numbers - (including the use of number lines)
- Recognize the place value of digits in whole numbers to at least 6-digit numbers
- Round off to the nearest 5, 10, 100 and 1 000
- Identify factors and multiples of numbers

### TOPIC: Number Concept










<b>RESOURCES</b>	DBE workbook 2, Sasol-Inzalo Book, text books
<b>VIDEO</b>	If you see this  please click on it to watch the video.
<b>DAY 1</b>	
<b>INTRODUCTION</b>	 <p>Let's take a quick look at the work you did in 2020, just before we were hit by the pandemic.</p>
<b>REVISION ACTIVITY:</b>	

### 1.1 Number names and number symbols:

1. Count in a group or on your own, softly or aloud, from one to one hundred and twenty.
2. How many cubes are down here? Write your answer in words, for example thirty-four.



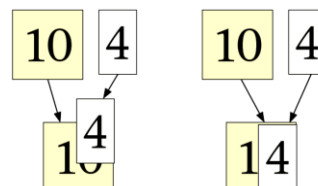
You already know that we use single symbols for numbers one to nine. We can illustrate as follow:

	One	1
	Two	2
	Three	3
	Four	4
	Five	5
	Six	6
	Seven	7
	Eight	8
	Nine	9



You also know that we do not have a single symbol for ten, nor for numbers greater than ten. For larger numbers we use compound symbols such as 10, 11, 12, 17, 34, 68, etc.

Look at the number 14 for example:



The compound symbol 14 indicates that the number consists out of two parts: 10 and 4. We put the 4 on top of the 0, as you can see here.

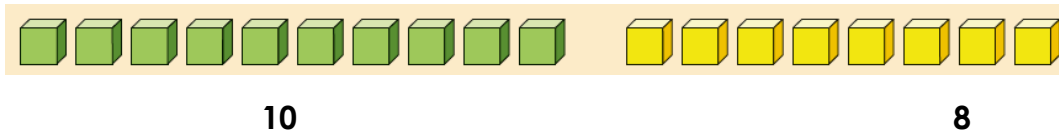
The number name **fourteen** means **four and ten**.

**CLASSWORK:**

**Activity 1:**

1. (a) What does the number name fifteen mean?  
(b) What does the number name sixteen mean?

**eighteen: 18**



The number eighteen has two parts: ten and eight.  
The **number symbol** for eighteen is **18**

2. (a) What are the parts of nineteen?  
(b) What is the number symbol for nineteen?

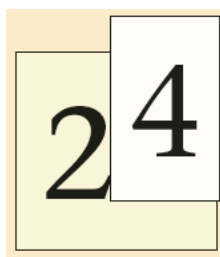
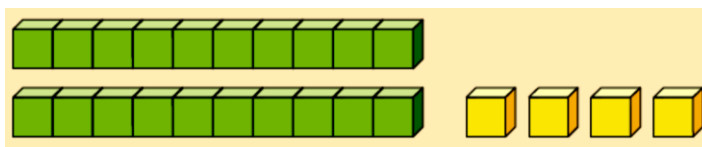
twenty-four

$$24 = 20 + 4$$

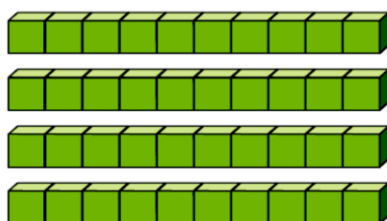
The number symbol is 24.

When you write this number as  $20 + 4$ , you are using the **expanded notation**.

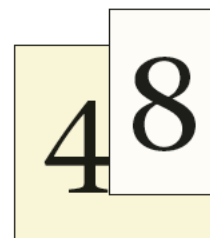
The English number name twenty-four tells you that the expanded notation is  $20 + 4$ .



3. Look at number 48:

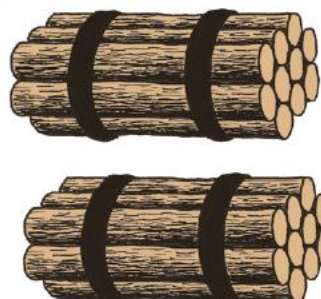
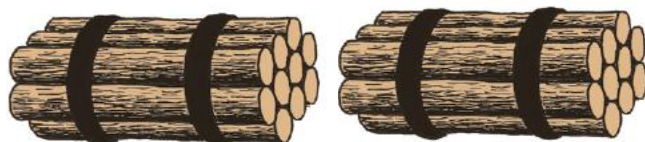


forty-eight



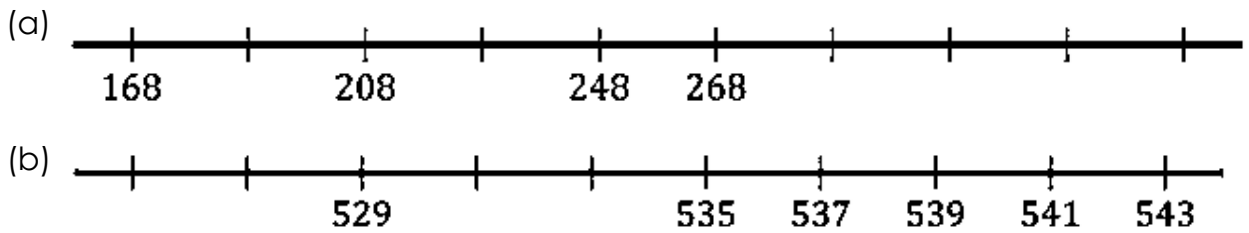
- (a) What are the parts of 48?  
(b) Write the expanded notation for 48.

4. Each bundle has 10 sticks.  
How many sticks are shown in this picture?





2. Redraw the number line and fill in the missing numbers.

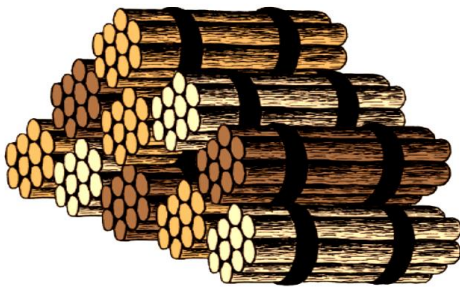


## DAY 2

**Introduction:** Can you still count as you did in grade 4. We are now going to do grade 4 counting just to refresh your heads.

**Topic: Count in hundreds, tens and ones**

Look at what this picture shows you:



A heap of **hundred** sticks  
(10 bundles of 10 sticks each)

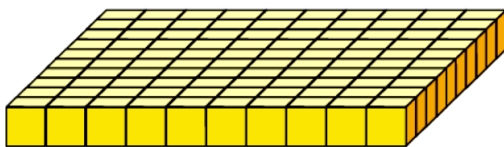


A bundle of ten sticks



One stick

A hundred, ten and one may also be represented in cubes as follows:



One hundred cubes



Ten cubes



One cube

## LEARNER ACTIVITY

### ACTIVITY 1:

1. (a) How many sticks are there in 2 bundles of 10 sticks each?
- (b) How many sticks are there in 5 bundles of 10 sticks each?
- (c) How many sticks are there in 7 bundles of 10 sticks each?
- (d) How many sticks are there in 10 bundles of 10 sticks each?
- (e) How many sticks are there in 12 bundles of 10 sticks each?

The symbol for one hundred is 100.  
The symbol for three hundred is 300.  
The symbol for eight hundred is 800.

300 sticks are shown below, in three heaps of 100 each.



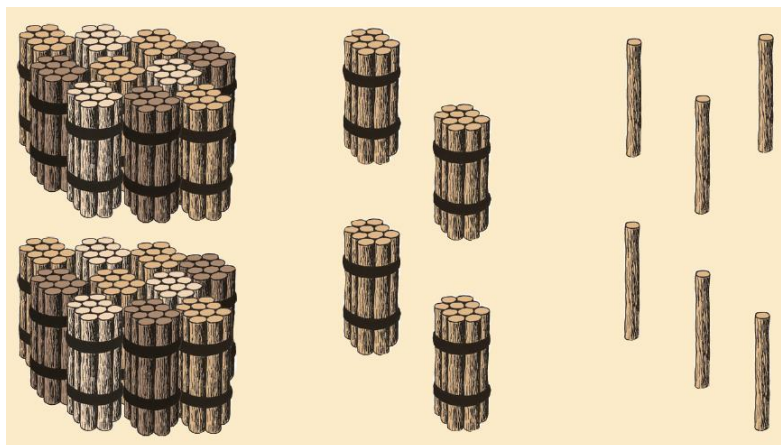
2. (a) How many sticks are there in 2 heaps of 10 bundles each?  
(b) How many sticks are there in 5 heaps of 10 bundles each?  
(c) How many sticks are there in 7 heaps of 10 bundles each?  
(d) How many sticks are there in 10 heaps of 10 bundles each?

10 hundreds is called one thousand.  
The symbol for one thousand is 1 000.

When we write the number symbol 1 000, we usually leave a space between the 1 and the 000. This makes it easier to read the number.

3. (a) How many bundles of 10 are there in 2 heaps of 100 sticks each?  
(b) How many bundles of 10 are there in 4 heaps of 100 sticks each?  
(c) How many bundles of 10 are there in 8 heaps of 100 sticks each?  
(d) How many bundles of 10 are there in 10 heaps of 100 sticks each?

Two hundred and forty-six sticks are shown below.



200 sticks

40 sticks

6 sticks

The number two hundred and forty-six is made up of three parts.  
The three parts are:



two hundred

200

This is the **hundreds part**.

forty

40

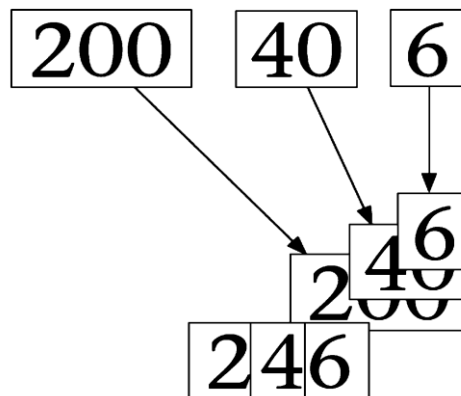
This is the **tens part**

six

6

This is the **units' part**.

The three parts can be combined to form the number symbol 246



In the number symbol 246, the 00 of the 200 is hidden behind the 46, and the 0 of the 40 is hidden behind the 6.

4. How many sticks are shown below?



5. Which is more? 699 sticks or 822 sticks?

6. How many sticks is 4 heaps, 7 bundles and 5 loose sticks?

7. (a) How many heaps of hundred can be made up from 384 sticks, and how many sticks will remain?

(b) How many bundles of ten can be made from the sticks that remain??



**ACTIVITY 2:**

1. Which number has the parts shown below?

**400**      **2**      **60**



a) Write the number name and the number symbol.

b) Also write the number in expanded notation.

2. Which number has the parts **700** and **2**

3. Write down the parts of 607?

4. Write down the parts of each of these numbers:

(a) 647

(b) 746

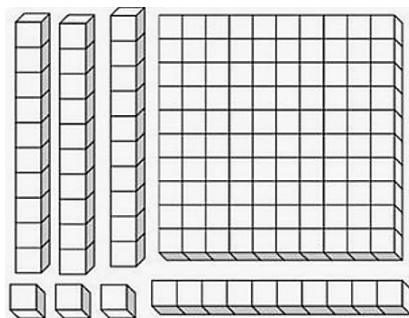
(c) 270

(d) 207

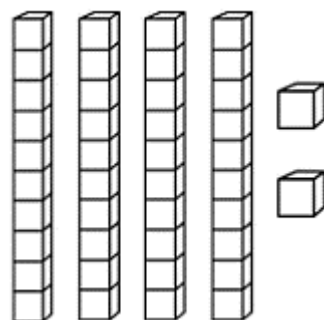
**HOMEWORK:**

1. If I have 10 bundles of 5 sticks and 4 loose sticks, how many sticks do I have all together?

2. How many cubes appear in the picture below?



3. How many tens and ones appear in the picture below?



4. What number consists out of:

(a)  $300 + 40 + 2$

(b)  $800 + 70 + 0$

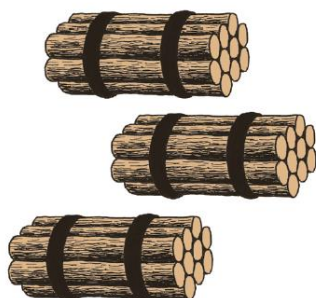


## DAY 3:

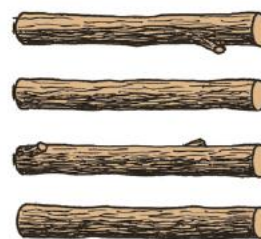
### INTRODUCTION:

#### Building up and breaking down numbers:

The numbers 30 and 4 can be combined to form the number 34.

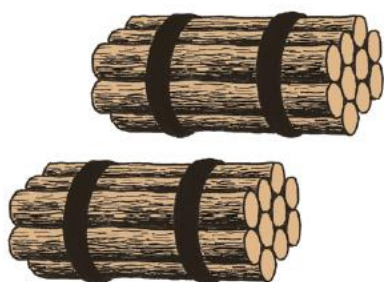


30

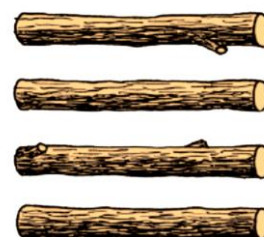


4

The number 34 can also be formed by combining two other numbers, for example 20 and 14.



20 + 14



There are many more ways in which 34 can be formed by combining two other numbers, for example:

$$18 + 16 = 34$$

$$25 + 9 = 34$$

$$28 + 6 = 34$$

## LEARNER ACTIVITY

### ACTIVITY 1:

1. Look at the two parts given in each item below. Which number is formed by combining the two parts? Write the number name and the number symbol.
- (a) 40 en 7      (b) 60 en 3      (c) 30 en 8      (d) 80 en 4

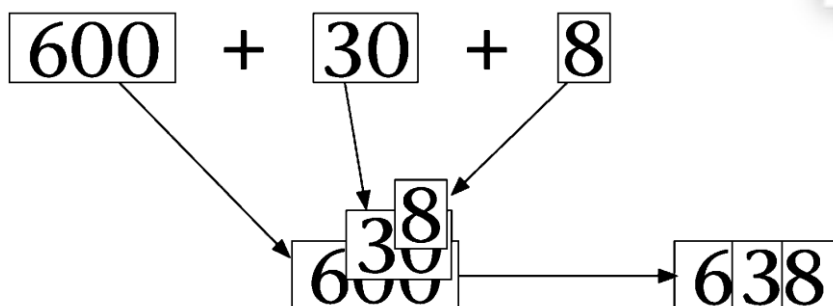
The parts that are mentioned in the name of a number is called the place value parts. For example, the place value parts of thirty-seven are 30 and 7.

2. What are the place value parts of each of the following numbers?
- (a) seventy-four      (b) fifty-nine      (c) forty-seven      (d) 83

The cards that you use in school to show numbers can be called **place value cards**. This is because each card that you use to build a number shows one of the place value parts.

Look at this example:

six hundred and thirty-eight is



3. (a) Which place value cards do you need to build 527?  
(b) Which place value cards do you need to build 725?  
(c) Which place value cards do you need to build 572?

## ACTIVITY 2:

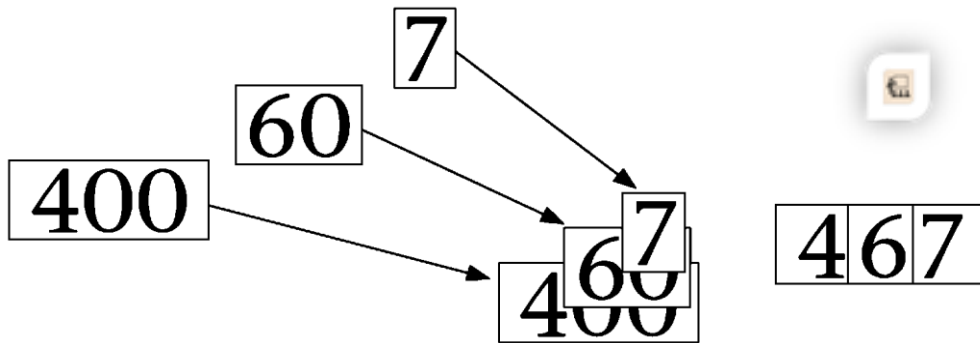
Number names expanded notation and number symbols.

$400 + 60 + 7$  is called the **expanded notation** for the number 467.

*Four hundred and sixty-seven* can be written in symbols like this:

$$400 + 60 + 7$$

In the short number symbol 467, the 60 is written on top of the two zeros of the 400, and the 7 is written on top of the zero of the 60:



1. Write down the place value parts that make up the number two hundred and eighty-three.
2. Write the number symbol for two hundred and eighty-three.
3. Write the expanded notation for the number two hundred and eighty-three.
4. Write the number name for 836.
5. Write 836 in expanded notation.
6. Write down the place value parts that make up the number 836.

The number symbol also tells us what the parts of the number are. Look at the number symbol 467, for example:

The “4” tells us that 400 is one of the parts of 467.



The symbol “6” tells us that 60 is one of the parts of 467.



7. What does the “7” in each of the following number symbols tell us about the number?  
(a) 573 (b) 357 (c) 735
8. (a) How do you know that the “7” in 573 means 70, and not 7 or 700?  
(b) How do you know that the “7” in 735 means 700, and not 7 or 70?

### ACTIVITY 3:

The “9” in 298 is in the place where the number of tens is shown. The “9” in 298 tells us that there are 9 tens in 298.

$$298 = 200 + 90 + 8$$

$$298 = 2 \text{ hundreds} + 9 \text{ tens} + 8 \text{ units}$$

We can say the place value of the “9” in 298 is tens.



Place values		
hundreds	tens	units
2	9	8

The “9” in 928 is in the place where the number of hundreds is shown. The “9” in 928 tells us that

$$\text{there are 9 hundreds in 928. } 928 = 900 + 20 + 8$$

$$928 = 9 \text{ hundreds} + 2 \text{ tens} + 8 \text{ units}$$

We can say the place value of the “9” in 928 is hundreds.



hundreds	tens	units
9	2	8

The “9” in 829 is in the place where the number of units is shown. The “9” in 829 tells us that there are 9 units in 829.

$$829 = 800 + 20 + 9$$

$$829 = 8 \text{ hundreds} + 2 \text{ tens} + 9 \text{ units}$$

We can say the place value of the “9” in 829 is units.



hundreds	tens	units
8	2	9

Note the following:

The number symbol for twenty-eight is 28 not 208.

208 is the number symbol for two hundred and eight.



The number symbol for one hundred and twenty-four is 124, not 10024 or 100204.

The expanded notation for one hundred and twenty-four is  $100 + 20 + 4$ .

We write **four** and **fourteen** but **forty**!

1. Write the number symbols for all the whole numbers from one hundred up to one hundred and fifty.

Start like this: 100    101    102 . . .



2. Write the number symbols for all the whole numbers from four hundred and twenty up to four hundred and sixty.



3. Draw three columns in your book.

(a) Write the number names for all the whole numbers from 637 up to 652 in the first column.

(b) In the second column, write the number symbols for these numbers.

(c) In the third column, write the numbers in expanded notation.

## INTRODUCTION:

### Represent, order and compare numbers:

1. Count in 5s from 20 to 45 and back.
2. Count in 2s from 32 to 50 and back.
3. Count back in threes from 27.
4. Count forward in 25s from 0 to 200.
5. Count back in 100s from 1 000 to 0.



## LEARNER ACTIVITIES

### ACTIVITY 1:

1. (a) Count in threes from 150 until you pass 200. Write down the number symbols as you go along.



150; ...; 156; ...; ...; 165; ...; ...; ...; 177; .....

- (b) Count backwards in threes from 450 until you reach 399. Write down the number symbols as you go along.

450; ...; 444; ...; ...; 435; ...; ...; 426; 423; .....

2. Eight numbers are missing on this number line. Write the numbers from smallest to biggest in your book. You must count in 30s to do this.



3. Arrange these numbers from smallest to biggest.  
(Hint: start by looking at the hundreds part of the numbers.)  
479 989 201 609 183 685 748

4. Count in 25s and complete the number grid.

125	150			
	275			
		425		
			575	
				725

**ACTIVITY 2:**

1. (a) Make a number line from 225 to 525. Show 225, 250, 275 and so on on your number line.
- (b) Make a number line from 0 to 1 000. Show 100, 200, 300 and so on.



2. Copy and complete this table

Number symbol	Number name	Expanded notation
	six hundred and thirty-four	
546		
		$300 + 20 + 9$
910		
		$700 + 30 + 4$
	two hundred and four	
703		
		$900 + 40 + 8$

In each case, decide which is the bigger of the two numbers.

Then represent them in this way:

- If the first number is bigger than the second then use  $>$ , for example  $600 > 500$ .
- If the first number is smaller than the second then use  $<$ , for example  $500 < 600$ .



3. Notice that the open part of the sign is always towards the bigger number.

(a) 498 and 902

(c) 291 and 289



(b) 676 and 687

(d) 653 and 635



**INTRODUCTION:**

**REVISION ACTIVITY:**

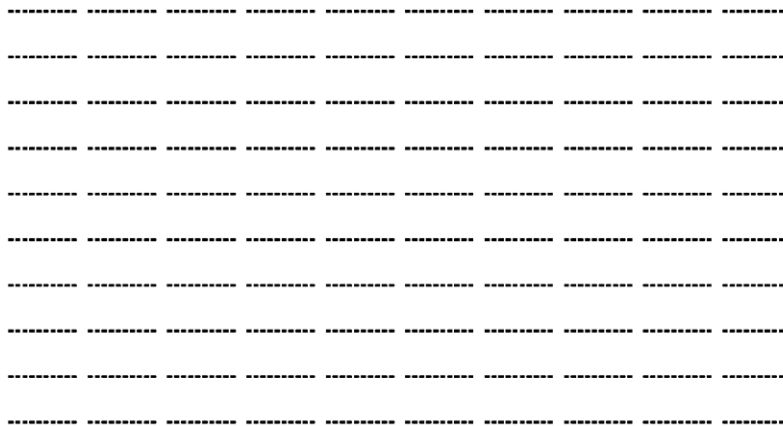
Count: You already know that ten tens are 100:



1. Hoeveel honderde word hier onder gewys?



2. How many hundreds are shown below?



3. How many more stripes are needed to fill this up to 5 000?

**CLASSWORK:**

**ACTIVITY 1:**

1. Write down the number symbols for the following numbers and arrange them from the smallest to the largest.

- (a) four thousand eight hundred = .....
- (b) three thousand and ninety = .....
- (c) four thousand and eighty-eight = .....
- (d) four thousand and eight = .....
- (e) three thousand two hundred = .....
- (f) three thousand one hundred and fifty = .....



Arrange: .....

2. Count and write the number symbols as you go along.

(a) Count in ten thousand from 20 000 to 180 000.

.....



(b) Count in the ten thousand from 200 000 to 400 000.

.....

3. One meter is 1 000 millimeters (Clues: m to mm I multiply by 1000).

Give your answers to the questions in words and in symbols.

This means that you have to write down the number names and the number symbols.

(a) How many millimeters is in 3 meters?

Words: .....

Number symbol: .....

(b) How many millimeters is in 30 meters?

Words: .....

Number symbol: .....

(c) How many millimeters is in 300 meters?

Words: .....

Number symbol: .....

(d) How many millimeters is 280 meters?

Words: .....

Number symbol: .....

(e) How many millimeters is in 720 meters?

Words: .....

Number symbol: .....

## Activity 2:

### Order and compare numbers:

1. Count in 400s from 40 800 until you reach 45 200. Write down the number symbols as you count.

.....

2. Redraw and complete the following number grid. You have to count in 2 250's.

9000	11 250	13 500	15 750	
20 250				
	33 750			40 500
42 750				
	56 250		60 750	

3. Arrange the following numbers in **ascending order** (from smallest to largest).

**66 152      98 987      95 923      98 899      21 965      47 677**

.....

4. Arrange the following numbers in **descending order** (from largest to smallest).

**27 180      65 153      20 122      20 121      31 999      31 001**

.....

5. Decide at each question whether the first number is greater or less than or equal to the second number. Then write the two numbers with an  $<$  or  $>$  or  $=$  between them.

(a) 63 372 .... 63 002

(b) 86 762 ..... 68 872

(c) 27 901 ..... 28 817

(d) 35 530 ..... 53 305

**HOMEWORK:** Do the exercises in your book:



1. Copy the number line.



(a) Write the numbers 6 200, 6 400 and 6 800 at the marks where they belong on your number line.

2. Copy this number line with ten marks.



(a) Write these numbers at the marks on your number line, from smallest to biggest. Leave marks open for the missing numbers.

**6 330**

**6 390**

**6 370**

**6 310**

**6 350**

**6 380**

**6 320**

## DAY 6:

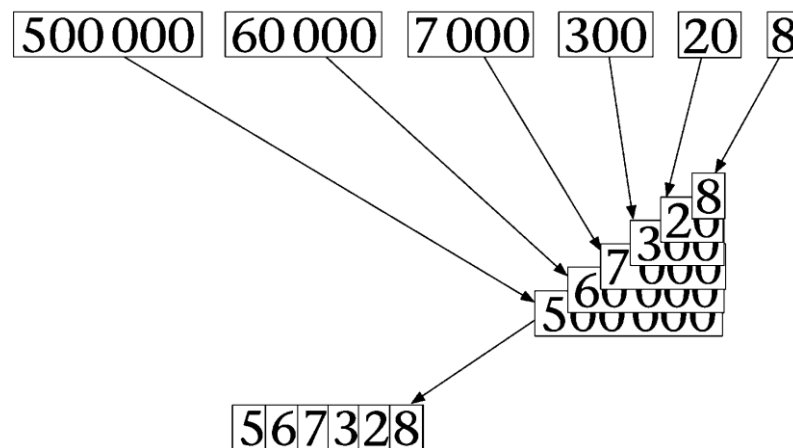
### INTRODUCTION:

#### Place value:

The number five hundred and sixty-seven thousand three hundred and twenty-eight can be broken down into the following place value parts:

**500 000**   **60 000**   **7 000**   **300**   **20**   **8**

Imagine that the place value parts are written on strips of cardboard or paper. The strips can then be put on top of each other to show what the number symbol looks like. The zeros of the bigger place value parts are hidden in the number symbol.



When we write 4-digit, 5-digit and 6-digit numbers, we can leave a space before the last group of three digits. For example, we can write:

7 622 instead of 7622

54 382 instead of 54382

136 961 instead of 136961.

This way of grouping the digits makes it easier to read and say a number.

Also notice how we use the word “and” before the tens and ones in each group of three digits when we say and write the number names of large numbers:

2 004	two thousand and four
2 714	two thousand seven hundred and fourteen
2 734	two thousand seven hundred and thirty-four
22 714	twenty-two thousand seven hundred and fourteen
272 609	two hundred and seventy-two thousand six hundred and nine

## LEARNER ACTIVITIES

### Classwork:

#### Activity:



1. Write the number symbol and expanded notation for each number.

(a) two hundred and ninety-five thousand one hundred and eighty-five.

Number symbol: .....

Expanded notation: .....

(b) nine hundred thousand seven hundred and five

Number symbol: .....

Expanded notation: .....

(c) nine hundred and eighty-nine thousand eight hundred and ninety-eight

Number symbol: .....

Expanded notation: .....

2. Write the number name and expanded notation for each number.

(a) 789 324 – Number name: .....

Expanded notation: .....

(b) 528 738 – Number name: .....

Expanded notation: .....

(c) 501 103 – Number name: .....

Expanded notation: .....

### HOMEWORK: Do the following in your book.



1. What number is formed?

1.1  $20 + 30\,000 + 4 + 80 =$

1.2  $700 + 9\,000 + 40 + 11\,000 + 5 + 200 =$

1.3  $100\,000 + 30\,000 + 3\,000 + 600 + 4 =$

2. Write the following numbers in expanded notation and in words:

2.1 609 734

2.2 432 802

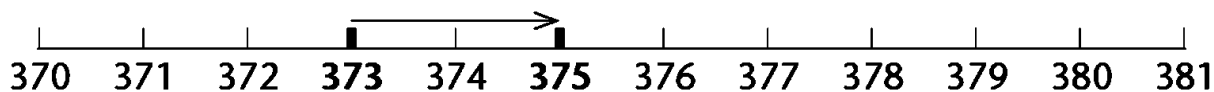
2.3 103 003

## DAY 7

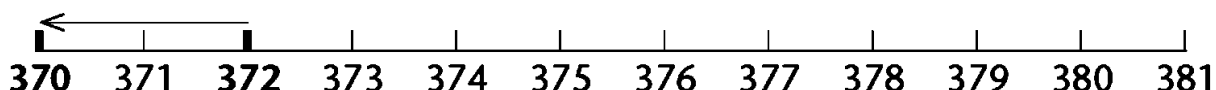
### Introduction:

#### Rounding to the nearest 5:

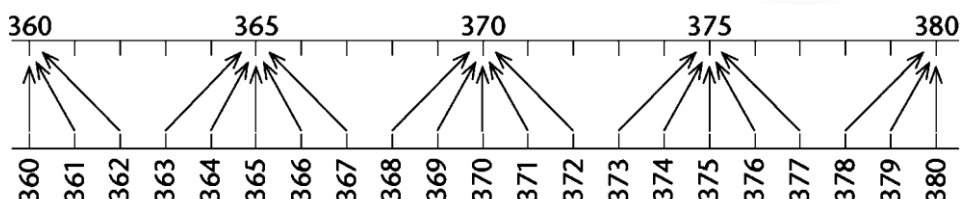
373 rounded to the nearest multiple of 5 is 375, because 373 is closer to 375 than to 370



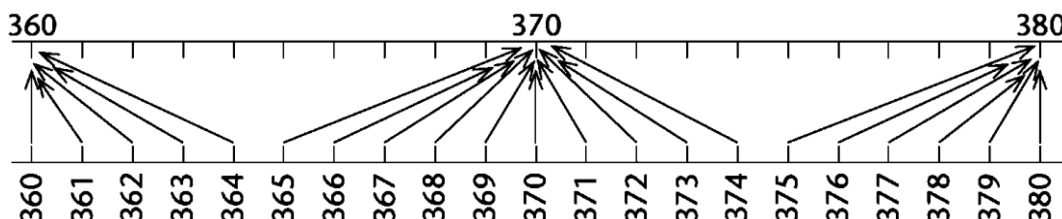
372 rounded to the nearest multiple of 5 is 370:



The diagram below shows how different numbers are rounded to the nearest multiple of 5.

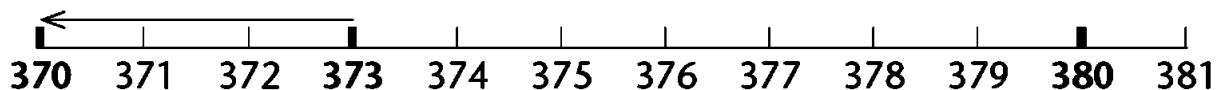


The diagram below shows how the same numbers are rounded to the nearest multiple of 10.

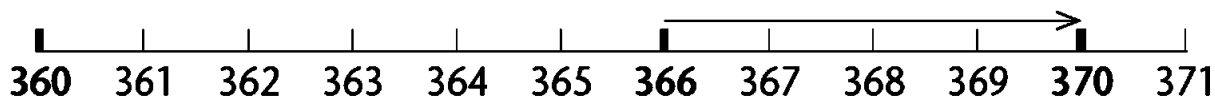


#### Rounding to the nearest 10:

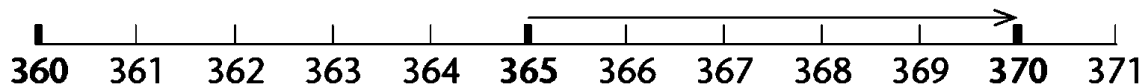
373 rounded to the nearest multiple of 10 is 370, because 373 is closer to 370 than to 380:



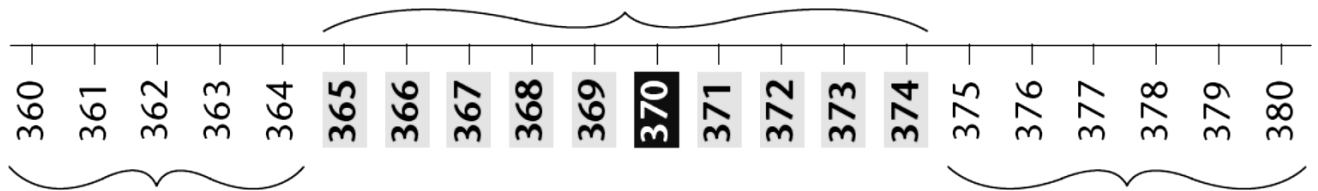
366 rounded to the nearest multiple of 10 is also 370:



A number ending in 5, such as 365, is equidistant from the nearest two multiples of 10. When we round to the nearest multiple of 10, we always round a number ending in 5 to the larger one of the two nearest multiples of 10, so 365 is rounded off to 370, and not to 360.



When you round to the nearest 10, all these numbers are rounded to 370:



These numbers are rounded off to 360.

These numbers are rounded off to 380

### Rounding to the nearest 10:

It is sometimes useful to estimate approximate answers for addition and subtraction. A good way to do this is to round off the numbers, and to calculate using the rounded-off numbers.

For example, an estimated answer can be obtained by rounding off  $7\,258 - 3\,574$  to the nearest thousand:

$7\,000 - 4\,000 = 3\,000$ , so  $7\,258 - 3\,574$  is approximately 3 000.

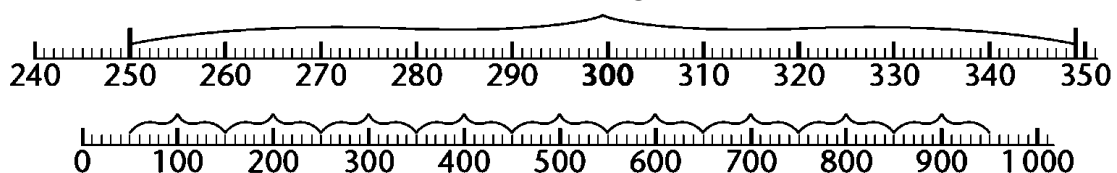
$7\,258 - 3\,574$  can also be approximated by rounding off to the nearest hundred:

$7\,300 - 3\,600 = 3\,700$ , so  $7\,258 - 3\,574$  is approximately 3 700.

The table below shows how rounding off to the nearest 100 is done. For example, all numbers between 150 and 249, including 150 and 249, are rounded off to 200.

Range	Rounded off to nearest 100	Examples
0 to 49	0	14, 34, 48, 49
50 to 149	100	50, 73, 101, 149
150 to 249	200	150, 188, 210, 249
250 to 349	300	250, 277, 325, 349
350 to 449	400	350, 359, 435, 449
.....	.....	.....
750 to 849	800	750, 786, 823, 849
850 to 949	900	850, 866, 899, 949
950 to 1 049	1 000	950, 967, 988, 1 049
1 050 to 1 149	1 100	1 050, 1 079, 1 149
.....	.....	.....
1 450 to 1 549	1 500	1 450, 1 485, 1 549

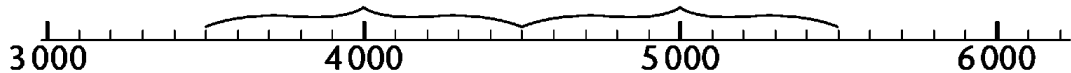
All the numbers between 250 and 349, including 250 and 349, are rounded off to 300.



**Rounding to the nearest 1000:**

Rounding off to the nearest 1 000 works in a similar way.

3 499 rounded off to the nearest 1 000 is 3 000 but 3 500 rounded off to the nearest 1 000 is 4 000.



Range	Rounded off to nearest 1 000	Examples
0 to 499	0	140, 340, 480, 499
500 to 1 499	1 000	500, 730, 1 010, 1 499
1 500 to 2 499	2 000	1 500, 1 880, 2 499
2 500 to 3 499	3 000	2 500, 3 250, 3 499
3 500 to 4 499	4 000	3 500, 4 350, 4 499
.....	.....	.....

**LEARNER ACTIVITIES****Classwork:**

1. Round each of the following numbers to the nearest 5.

- (a) 272  $\approx$  ..... (b) 273  $\approx$  .....  
 (c) 873  $\approx$  ..... (d) 998  $\approx$  .....  
 (e) 282  $\approx$  ..... (f) 279  $\approx$  .....



2. Round the numbers above to the nearest 10.

- (a) 272  $\approx$  ..... (b) 273  $\approx$  .....  
 (c) 873  $\approx$  ..... (d) 998  $\approx$  .....  
 (e) 282  $\approx$  ..... (f) 279  $\approx$  .....

3. Round each of the following numbers to the nearest 10:

- a) 2 736  $\approx$  ..... (b) 2 735  $\approx$  .....  
 c) 2 734  $\approx$  ..... (d) 5 101  $\approx$  .....

4. Round the following numbers to the nearest 100.

- (a) 548  $\approx$  ..... (b) 550  $\approx$  .....  
 (c) 1 111  $\approx$  ..... (d) 3 249  $\approx$  .....

5. (a) What is the biggest number that is rounded off to 200? .....

(b) What is the smallest number that is rounded off to 200? .....

6. a) What is the biggest number that is rounded off to 600? .....

(b) What is the smallest number that is rounded off to 600? .....



7. (a) Write four different numbers that are all rounded off to 400.

.....  
 .....



(b) Write four different numbers that are all rounded off to 1 200.

.....

8. (a) Write four different numbers that are all rounded off to 800.

.....

(b) Write four different numbers that are all rounded off to 2 300.

.....

(c) Write four different numbers that are all rounded off to 3 700.

.....

9. Round 2 499 to the nearest 1 000 and to the nearest 100:

(a) nearest 1000: 2 499  $\approx$  .....

(b) nearest 100: 2 499  $\approx$  .....

### CONSOLIDATION & HOMEWORK:



1. Expand the table below for numbers from 4 500 to 7 499.

Range	Rounded off to nearest 1 000	Examples

2. Round the following numbers to the nearest 10, the nearest 100 and the nearest 1 000.

Nearest 10:

Nearest 100:

Nearest 1000:

(a) 2 317  $\approx$  .....

2 317  $\approx$  .....

2 317  $\approx$  .....

(b) 2 344  $\approx$  .....

2 344  $\approx$  .....

2 344  $\approx$  .....

(c) 2 345  $\approx$  .....

2 345  $\approx$  .....

2 345  $\approx$  .....

## INTRODUCTION.

### Examples:

- 1) 2; 4; 6; 8; 10; 12; 14; 16;.....
- 2) 3; 6; 9; 12; 15; 18; 21; .....



When the tables are written like this we call each row a **sequence**. We also call them **multiples**.  
3, 6, 9, ... is the sequence of **multiples of 3**.

### 1. Give the multiples for each of the following:

- (a) First six multiples of 7.

.....

- (b) Multiples of 5, starting at 10 and ending at 35.

.....

- (c) Multiples of 4, from 4 to 36.

.....

- (d) Multiples of 4, between 4 and 36.

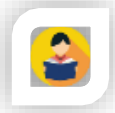
.....

- (e) Multiples of 6, less than 24.

.....

- (f) Multiples of 9, less than 30, but greater than 9

.....



### 2. Factors:

You can get the number 48 by calculating  $6 \times 8$ .



We can say:

- 48 is the product of 6 and 8.
  - 48 is a multiple of 6.
- 48 is also a multiple of 8.



- 8 is a factor of 48.
- 6 is also a factor of 48.

We can also express (write) 48 in other ways than the product of two integers:

$$2 \times 24 = 48 \quad 3 \times 16 = 48 \quad 4 \times 12 = 48$$

And we can also express 48 as the product of 1 and 48 because  $1 \times 48 = 48$ .

- a) Express 36 in three ways as the product of two numbers. The two factors may be the same. Look at the example of 48.

.....

- b) 42 is a multiple of 6, because  $6 \times 7 = 42$ . 60 is also a multiple of 6, because  $6 \times 10 = 60$ . Write down five other multiples of 6.

.....

## LEARNER ACTIVITY

### Classwork:

1. Write down all the different ways in which each of the following numbers can be expressed as the product of two numbers.

(a) 24

--

(b) 36

--

(c) 72

--

(d) 120

--

(e) 240

--



2. Write down 10 multiples of 40.

.....

3. Express each of the following numbers as a multiple of 40.

(a)  $400 = \dots\dots\dots$

(b)  $440 = \dots\dots\dots$

4. Express each of the following numbers as a multiple of 30.

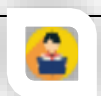
(a)  $600 = \dots\dots\dots$

(b)  $690 = \dots\dots\dots$

## **HOMEWORK:**



1. Which of 36; 18; 6; 3 and 8 is:
  - a) factors of 12?
  - b) multiples of 12?
  
- 2) Which number a factor and a multiple of 15 is at the same time?
  
- 3) Use the terms “multiple” or “factor” to complete the following:
  - a) 24 is a \_\_\_\_\_ of 3
  - b) 10 is a \_\_\_\_\_ of 70
  - c) The even numbers are \_\_\_\_\_ of 2
  - d) 2 is a \_\_\_\_\_ of any even number

**Consolidation:**

- (a) Which digit in the number symbol 7 465 is in the tens' place? .....

(b) Which digit in the number symbol 7 465 represents the number 400? .....
- The digit in the hundreds' place in 8 243 is 2.

(a) Which digit stands in the place of the tens in 8 243? .....

(b) Which digit stands in the place of the tens in 4 283? .....
- The numbers below are written in expanded notation. Write the number symbols for these numbers.

(a)  $700 + 50 + 3\,000 + 8 =$  ..... (b)  $70 + 300 + 6 + 1\,000 =$  .....

(c)  $8\,000 + 200 + 6 =$  ..... (d)  $8\,000 + 20 + 6 =$  .....
- Write the following numbers, from smallest to largest, above to the marks on the number line. Leave marks open if there are any missing numbers.

6 330      6 390      6 370      6 310      6 350      6 380      6 320

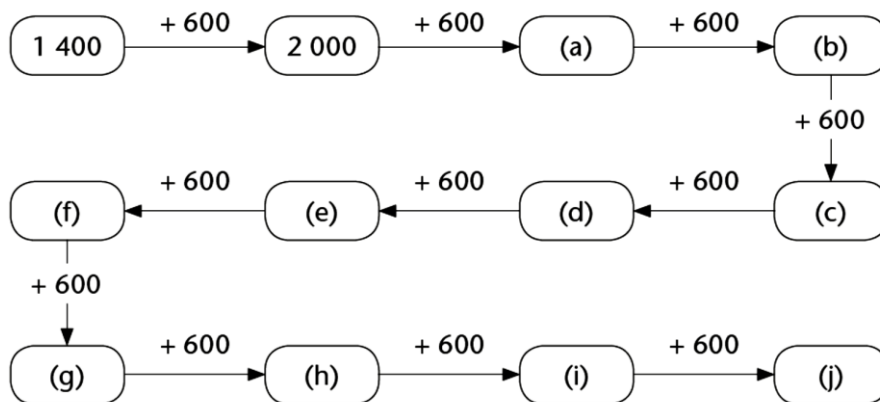
\_\_\_\_\_
- (a) Count in 5s from 3 250 to 3 300.

.....

(b) Count in 5s from 2 158 until you reach 2 188.

.....
- Write down the numbers that should be in the squares of the diagram. For example, the answer for (a) is 2 600.

- (b) .....  
(c) .....  
(d) .....  
(e) .....  
(f) .....  
(g) .....  
(h) .....  
(i) .....  
(j) .....



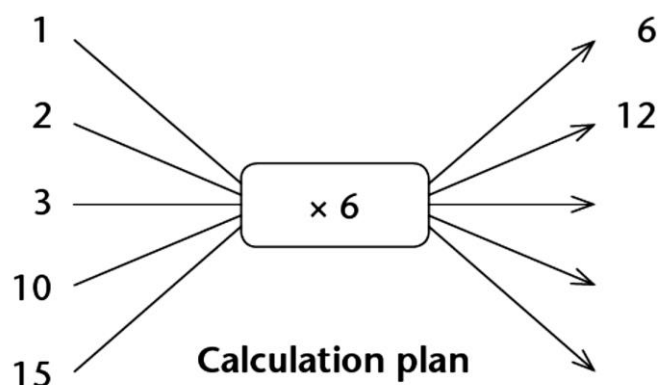
7. Estimate in three ways how much  $2\,366 + 4\,522$  is:
- (a) by first rounding each number to the nearest 1 000.....
  - (b) by first rounding each number to the nearest 100 .....
  - (c) by first rounding each number to the nearest 10 .....
8. Estimate the answers to each of the following questions by rounding off the numbers to the nearest 1 000.
- (a) Lennie needs 6 468 bricks to build a small house and 3 236 bricks to build a wall around his plot. How many bricks does Lennie need in total?

- (b) Now calculate the exact answer.

9. Complete this flow diagram and table for multiples of 6. What patterns do you notice?

**Input numbers**  
**Position no.**

**Output numbers**  
**Multiples of 6**



Position no.	1	2	3	10	15	20	40
$\times 6$	6	12					

## Memorandum

### DAY 1:

#### Introduction:

1.1

1. Learners count soft from 1 to 120

2. vyf – en – vyftig

#### LEARNER ACTIVITY:

##### Classwork:

##### ACTIVITY 1:

1. (a) 5 and 10

(b) 6 and 10

2. (a) 10 and 9

(b) 19

3. (a) 40 and 8

(b)  $40 + 8$

4. 47

##### ACTIVITY 2:

1.	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68	69	70
	71	72	73	74	75	76	77	78	79	80
	81	82	83	84	85	86	87	88	89	90
	91	92	93	94	95	96	97	98	99	100

2. 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

3. 100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0

4.

5.

6.



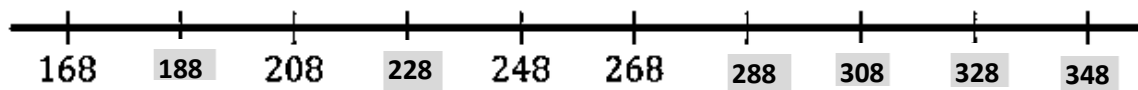
7.



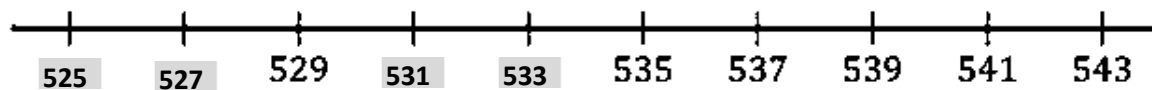
**HOMEWORK:**

1. (a) twenty five  
(b) thirteen

2. (a)



(b)



**DAY 2:****LEARNER ACTIVITY:****ACTIVITY 1:**

1. (a) 20  
(b) 50  
(c) 70  
(d) 100  
(e) 120
2. (a) 200  
(b) 500  
(c) 700  
(d) 1 000
3. (a) 20  
(b) 40  
(c) 80  
(d) 100
4. 574
5. 822
6. 475
7. (a) 3 heaps; 84 sticks remaining  
(b) 8 bundles

**ACTIVITY 2:**

1. (a) four hundred and sixty-two    462  
(b)  $400 + 60 + 2$
2. 702
3. 600 en 7
4. (a) 600    40    7  
(b) 700    40    6  
(c) 200    70  
(d) 200    and    7

**HOMEWORK:**

1. 54
2. 143
3. 4 tens en 2 units
4. (a) 342  
(b) 870

**DAY 3:****ACTIVITY 1:**

1. (a) Number name: forty - seven  
Number symbol: 47  
  
(b) Number name: sixty - three  
Number symbol: 63  
  
(c) Number name: thirty-eight  
Number symbol: 38  
  
(d) Number name: eighty - four  
Number symbol: 84

2. (a) 70 and 4  
(b) 50 and 9  
(c) 40 and 7

3. (a) 500    20    7  
(b) 700    20    5  
(c) 500    70    2

**AKTIWITEIT 2:**

1. 200    80    3
2. 283
3.  $200 + 80 + 3$
4. eight hundred and thirty-six
5.  $800 + 30 + 6$
6. 800    30    6
  
7. (a) The 7 tells us that 70 is one of the parts of 573.  
(b) The 7 tells us that 7 is one of the parts of 357.  
(c) The 7 tells us that 700 is one of the parts of 735.
  
8. (a) Its position is in the tens place  
(b) Its position is in the hundreds place

**ACTIVITY 3:**

- |        |     |     |     |     |     |     |     |     |     |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 |
| 110    | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 |
| 120    | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 |
| 130    | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 |
| 140    | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 |
| 150    |     |     |     |     |     |     |     |     |     |

2. 420	421	422	423	424	425	426	427	428	429
430	431	432	433	434	435	436	437	438	439
440	441	442	443	444	445	446	447	448	449
450	451	452	453	454	455	456	457	458	459
460									

3.

Number name	Number symbol	Expanded notation
six hundred and thirty-seven	637	$600 + 30 + 7$
six hundred and thirty-eight	638	$600 + 30 + 8$
six hundred and thirty-nine	639	$600 + 30 + 9$
six hundred and forty	640	$600 + 40$
six hundred and forty-one	641	$600 + 40 + 1$
six hundred and forty-two	642	$600 + 40 + 2$
six hundred and forty-three	643	$600 + 40 + 3$
six hundred and forty-four	644	$600 + 40 + 4$
six hundred and forty-five	645	$600 + 40 + 5$
six hundred and forty-six	646	$600 + 40 + 6$
six hundred and forty-seven	647	$600 + 40 + 7$
six hundred and forty-eight	648	$600 + 40 + 8$
six hundred and forty-nine	649	$600 + 40 + 9$
six hundred and fifty	650	$600 + 50$
six hundred and fifty-one	651	$600 + 50 + 1$
six hundred and fifty-two	652	$600 + 50 + 2$

## DAY 4:

## Introduction:

1. 20; 25; 30; 35; 40; 45 and 45; 40; 35; 30; 25; 20  
 2. 32; 34; 36; 38; 40; 42; 44; 46; 48; 50 and 50; 48; 46; 44; 42; 40; 38; 36; 34; 32  
 3. 27; 24; 21; 18; 15; 12; 9; 6; 3; 0  
 4. 0; 25; 50; 75; 100; 125; 150; 175; 200  
 5. 1 000; 900; 800; 700; 600; 500; 400; 300; 200; 100; 0

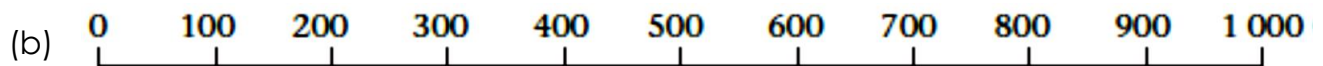
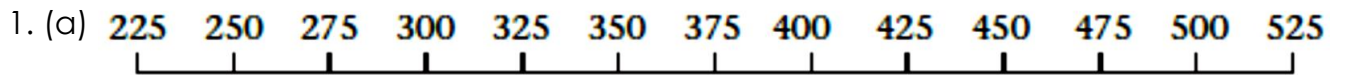
## ACTIVITY 1:

1. (a) 150; 153; 156; 159; 162; 165; 168; 171; 174; 177; 180; 183; 186; 189; 192; 195; 198; 201  
(b) 450; 447; 444; 441; 438; 435; 432; 429; 426; 423; 420; 417; 414; 411; 408; 405; 402; 399
2. 330      360      390      420      450      480      510      540      570      600
3. 183; 201; 479; 609; 685; 748; 989

4.

125	150	175	200	225
250	275	300	325	350
375	400	425	450	475
500	525	550	575	600
625	650	675	700	725

### ACTIVITY 2:



2.

Number symbol	Number symbol	Expanded notation
634	six hundred and thirty-four	$600 + 30 + 4$
546	five hundred and forty-six	$500 + 40 + 6$
329	three hundred and twenty-nine	$300 + 20 + 9$
910	nine hundred and ten	$900 + 10$
734	seven hundred and thirty-four	$700 + 30 + 4$
204	two hundred and four	$200 + 0 + 4$
703	seven hundred and three	$700 + 3$
948	nine hundred and forty-eight	$900 + 40 + 8$

3. (a) <

(b) <

(c) >

(d) >

**Day 5:**

1. 3 hundreds
2. 1000
3. 4000

Classwork:

1. a) 4 800
- b) 3 090
- c) 4 088
- d) 4 008
- e) 3 200
- f) 3 150

Arrangement: 3 090; 3 150; 3 200; 4 008; 4 088; 4 800

2. a) 20 000; 30 000; 40 000; 50 000; 60 000; 70 000; 80 000; 90 000; 100 000; 110 000; 120 000; 130 000; 140 000; 150 000; 160 000; 170 000; 180 000
- b) 200 000; 210 000; 220 000; 230 000; 240 000; 250 000; 260 000; 270 000; 280 000; 290 000; 300 000; 310 000; 320 000; 330 000; 340 000; 350 000; 360 000; 370 000; 380 000; 390 000; 400 000
3. a) Words: three thousand millimetres  
Number symbol: 3 000mm
- b) Words: thirty thousand millimetres  
Number symbol: 30 000mm
- c) Words: three hundred thousand millimetres  
Number symbol: 300 000mm
- d) Words: two hundred and eighty thousand millimetres  
Number symbol: 280 000mm
- e) Words: seven hundred and twenty thousand millimetres  
Number symbol: 720 000mm

## Activity 2:

### Order and compare numbers:

1. 40 800; 41 200; 41 600; 42 000; 42 400; 42 800; 43 200; 43 600; 44 000; 44 400; 44 800; 45 200

2.

9 000	11 250	13 500	15 750	18 000
20 250	22 500	24 750	27 000	29 250
31 500	33 750	36 000	38 250	40 500
42 750	45 000	47 250	49 500	51 750
54 000	56 250	58 500	60 750	63 000

3. 21 965; 47 677; 66 152; 95 923; 98 899; 98 987

4. 65 153; 31 999; 31 001; 27 180; 20 122; 20 121

5. a) >

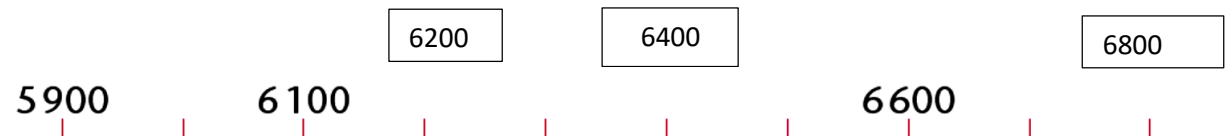
b) >

c) <

d) <

### Homework:

1.



2.





**DAY 6:**

1.a)  $195\ 185 = 100\ 000 + 90\ 000 + 5\ 000 + 100 + 80 + 5$

b)  $900\ 705 = 900\ 000 + 700 + 5$

c)  $989\ 898 = 900\ 000 + 80\ 000 + 9\ 000 + 800 + 90 + 8$

2. a) seven hundred and eighty-nine thousand three hundred and twenty-four  
 $700\ 000 + 80\ 000 + 9\ 000 + 300 + 20 + 4$

b) five hundred and twenty-eight thousand seven hundred and thirty-eight  
 $500\ 000 + 20\ 000 + 8\ 000 + 700 + 30 + 8$

c) five hundred and one thousand one hundred and three  
 $500\ 000 + 1\ 000 + 100 + 3$

**HOMEWORK:**

1. 1.1) 30 104

1.2) 21 245

1.3) 133 064

2. 2.1) Expanded notation:  $600\ 000 + 9\ 000 + 700 + 30 + 4$

Words: six hundred and nine thousand seven hundred and thirty-four

2.2) Expanded notation:  $400\ 000 + 30\ 000 + 2\ 000 + 800 + 2$

Words: Four hundred and thirty-two thousand eight hundred and two

2.3) Expanded notation:  $100\ 000 + 3$

Words: One hundred thousand and three

## **DAY 7:**

### **1. Nearest 5:**

- |        |         |
|--------|---------|
| a) 270 | b) 275  |
| c) 875 | d) 1000 |
| e) 280 | f) 280  |

### **2. Nearest 10:**

- |        |         |
|--------|---------|
| a) 270 | b) 270  |
| c) 873 | d) 1000 |
| e) 280 | f) 280  |

- |             |           |
|-------------|-----------|
| 3. a) 2 740 | b) 2 740  |
| c) 2 730    | d) 51 000 |

### **4. Nearest 100:**

- |          |          |
|----------|----------|
| a) 500   | b) 600   |
| c) 1 100 | d) 3 200 |

- |           |        |
|-----------|--------|
| 5. a) 249 | b) 150 |
|-----------|--------|

- |           |        |
|-----------|--------|
| 6. a) 549 | b) 450 |
|-----------|--------|

7. a) 350; 359; 435; 449; ... or any acceptable correct answer from the learner  
b) 1 249; 1 179; 1 190; 1 201; ... or any acceptable correct answer from the learner

8. a) 750; 786; 823; 849; ... or any acceptable correct answer from the learner  
b) 2 301; 2 295; 2 349; 2 350; ... or any acceptable correct answer from the learner  
c) 3 650; 3 749; 3 701; 3 684; ... or any acceptable correct answer from the learner

- |             |          |
|-------------|----------|
| 9. a) 2 000 | b) 2 500 |
|-------------|----------|

**Consolidation and homework:**

1.

Range	Rounded to nearest 1000	Examples
4 500 to 5 499	5 000	4 500; 5 230; 4 599; ...
5 500 to 6 499	6 000	5 500; 6 450; 5 999; ...
6 500 to 7 499	7 000	6 500; 6 549; 7 320; ...
Accept any alternative, correct answer of the learner		

2.

**Nearest 10****Nearest 100****Nearest 1000**

a) 2 320

2 300

2 000

b) 2 340

2 300

2 000

c) 2 350

2 300

2 000

**Day 8:****1. Multiples:**

- (a)  $M_7$  - (7; 14; 21; 28; 35; 42; 49)  
 (b)  $M_5$  - (10; 15; 20; 25; 30; 35)  
 (c)  $M_4$  - (4; 8; 12; 16; 20; 24; 28; 32; 36)  
 (d)  $M_4$  - (8; 12; 16; 20; 24; 28; 32)  
 (e)  $M_6$  - (6; 12; 18)  
 (f)  $M_9$  - (18; 27)

**2. Factors:**

- a)  $1 \times 36$   
 $2 \times 18$   
 $3 \times 12$   
 $4 \times 9$   
 $6 \times 6$

- b)  $M_6$  - (12; 18; 24; 30; 36; ...; 54; 60; 66; ....) any correct multiples of 6 given by the learner is acceptable.

**Learner activity:**

1.

24	36	72	120	240
1 x 24 or 24 x 1	1 x 36 or 36 x 1	1 x 72 or 72 x 1	1 x 120 or 120 x 1	1 x 240 or 240 x 1
2 x 12 or 12 x 2	2 x 18 or 18 x 2	2 x 36 or 36 x 2	2 x 60 or 60 x 2	2 x 120 or 120 x 2
3 x 8 or 8 x 3	3 x 12 or 12 x 3	3 x 24 or 24 x 3	3 x 40 or 40 x 3	3 x 80 or 80 x 3
4 x 6 or 6 x 4	4 x 9 or 9 x 4	4 x 72 or 72 x 4	4 x 30 or 30 x 4	4 x 60 or 60 x 4
	6 x 6	6 x 12 or 12 x 6	5 x 24 or 24 x 5	6 x 40 or 40 x 6
		8 x 9 or 9 x 8	6 x 20 or 20 x 6	8 x 30 or 30 x 8
			8 x 15 or 15 x 8	10 x 24 or 24 x 10
			10 x 12 or 12 x 10	12 x 20 or 20 x 12
				15 x 16 or 16 x 15

2.  $M_{40}$  - (80; 120; 160; 200; 240; 280; 320; 360; 400; 440) or any other correct multiple of 40

3. a)  $400 = 40 \times 10$

b)  $440 = 40 \times 11$

4. a)  $600 = 30 \times 20$

b)  $690 = 23 \times 30$

**Homework:**

1. a) 3 and 6  
 b) 36

2. 15

3. a) multiple  
 d) factor

b) factor

c) multiple

## Day 9:

### Consolidation:

1. a) 6

b) 4

2. a) 4

b) 8

3. a) 3 758

b) 1 376

c) 8 206

d) 8 026

4.



5. a)  $M_5 - (3\ 250; 3\ 255; 3\ 260; 3\ 265; 3\ 270; 3\ 275; 3\ 280; 3\ 285; 3\ 290; 3\ 295; 3\ 300)$

b) 2 158; 2 163; 2 168; 2 173; 2 178; 2 183; 2 188

6. b) 3 200

b) 3 800

c) 4 400

d) 5 000

e) 5 600

f) 6 200

g) 6 800

h) 7 400

i) 8 000

j) 8 600

7. a)  $2\ 000 + 5\ 000 = 7\ 000$

b)  $2\ 400 + 4\ 500 = 6\ 900$

c)  $2\ 370 + 4\ 520 = 6\ 890$

8. a)  $6\ 000 + 3\ 000 = 9\ 000$

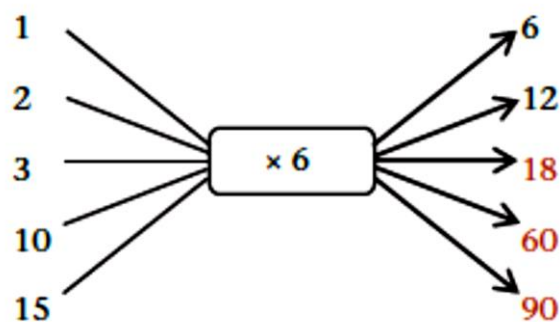
b)  $6\ 000 + 400 + 60 + 8$

$3\ 000 + 200 + 30 + 6$

$9\ 000 + 600 + 90 + 14$

→  $9\ 000 + 600 + 90 + 10 + 4$   
= 9 704

9.



Position no.	1	2	3	10	15	20	40
$\times 6$	6	12	18	60	90	120	240