



## HOME-SCHOOLING: GRADE 5 MATHEMATICS WORKSHEETS:

### TOPIC: WHOLE NUMBERS

#### Activity 1

1. Write the number symbols for these numbers and arrange them from smallest to biggest.

- (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

2. (a) Copy the number line.



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

3. (a) Copy this number line with ten marks.



(b) 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

4. Write the numbers down as you go along in each counting task.

- (a) Count forwards in 5s from 3 250 up to 3 300.
- (b) Count forwards in 25s from 3 250 up to 3 450.
- (c) Count forwards in 50s from 3 250 up to 3 450.
- (d) Count forwards in 5s from 2 158 until you reach 2 188.
- (e) Count forwards in 50s from 2 133 until you reach 2 333.
- (f) Count forwards in 25s from 2 127 until you reach 2 327.



## HOME-SCHOOLING: GRADE 5 MATHEMATICS WORKSHEETS:

### TOPIC: WHOLE NUMBERS – Rounding Off Whole Numbers

**Activity 1:** Study the following table

Rounding off to the nearest 5,10,100 and 1 000

Rounding	Rounding off digits	Round up or down
To the nearest 5: we look at the last digit	$8\ 342 \approx 8\ 340$	If the units are 0;1 or 2 the tens stay the same and the units change to 0
	$8\ 348 \approx 8\ 350$	
	$8\ 346 \approx 8\ 345$	If the units are 8 or 9 the tens increase by 1 and the units change to 0
To the nearest 10: we look at the last digit	$1\ 871 \approx 1\ 870$	The unit's digit is less than 5. Round down
	$28\ 425 \approx 28\ 430$	The unit's digit is 5 or more than 5. Round up
To the nearest 100: we look at last 2 digits	$9\ 811 \approx 9\ 800$	The last 2 digits are less than 50. Round down
	$67\ 675 \approx 67\ 700$	The last 2 digits are 50 or more than 50. Round up.
To the nearest 1 000: we look at last 3 digits	$8\ 232 \approx 8\ 000$	The last 3 digits are less than 500. Round down
	$88\ 988 \approx 89\ 000$	The last 3 digits are 500 or more than 500. Round up.

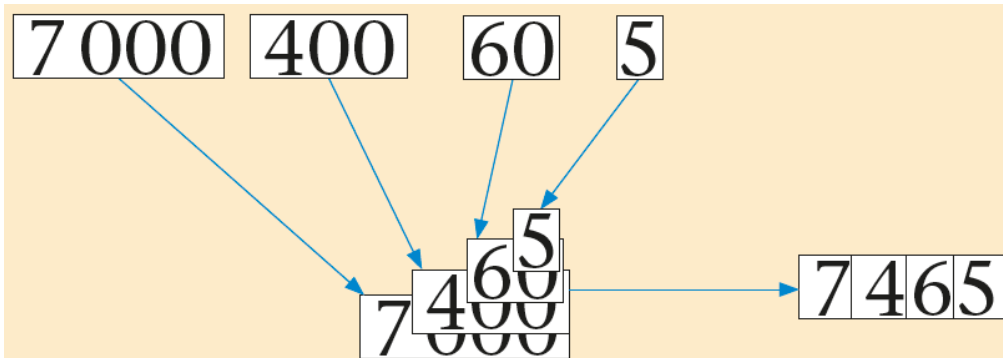
### Activity 2

Copy and complete the table.

Round off to the nearest	5	10	100	1 000
4 526				
5 079				
9 352				
6 463				
7 978				

### Activity 3

The number symbol for seven thousand four hundred and sixty-five is 7 465. The number symbol can be built up with place value cards:



Write the number symbols for these numbers.

- (a) seven thousand nine hundred and forty-eight
- (b) six thousand eight hundred and fifty-three
- (c) one thousand and forty-five
- (d) three thousand nine hundred and seventy-five
- (e) four thousand and eight

The **place value parts** of 7 465 are 7 000, 400, 60 and 5.

The **expanded notation** for 7 465 is  $7\ 000 + 400 + 60 + 5$ .

Write the expanded notation for each of these numbers.

- (a) 1 273
- (b) 6 525
- (c) 2 015

The “7”, the “4”, the “6” and the “5” in the number symbol 7 465 are called **digits**.

The digit “7” in the number symbol 7 465 means 7 000 or 7 thousands because it is in the thousands place.

Any digit in this position indicates thousands.

thousands	hundreds	tens	units
7	4	6	5

$7\ 465 = 7\ \text{thousands} + 4\ \text{hundreds} + 6\ \text{tens} + 5\ \text{units}$

$7\ 465 = 7\ 000 + 400 + 60 + 5$

The **value** or meaning of a digit in a number symbol depends on the position or **place** of the digit in the number symbol.



## HOME-SCHOOLING: GRADE 5 MATHEMATICS WORKSHEETS:

### TOPIC: WHOLE NUMBERS – Addition and Subtraction

#### Activity 1

1. Write each of the following as a single number

a)  $50\ 000 + 18\ 000 + 700 + 60 + 28 =$

b)  $40\ 000 + 4\ 000 + 1\ 300 + 80 + 7 =$

2. Write the following numbers in expanded notation

a) 45 704

b) 17 526

**Method 1:** Breaking down both numbers to add and then building up

**Step 1** Break both numbers down into their place value parts.

**Step 2:** Add each kind of place value part separately, add thousands to thousands, hundreds to hundreds, tens to tens and units to units.

**Step 3:** Make transfer if it is necessary.

**Step 4:** Combine the parts to build up the answer.

#### Example1:

Calculate:  $34\ 387 + 23\ 362$

**Step 1:**  $34\ 687 = 30\ 000 + 4\ 000 + 300 + 80 + 7$  and  $23\ 365 = 20\ 000 + 3000 + 300 + 60 + 2$

**Step 2:**  $30\ 000 + 20\ 000 = 50\ 000$

$$4\ 000 + 3\ 000 = 7\ 000$$

$$300 + 300 = 600$$

$$80 + 60 = 140$$

$$7 + 2 = 9$$

**Step 3:**  $34\ 387 + 23\ 365 = 50\ 000 + 7\ 000 + 600 + 140 + 9$  (transfer 100 from 140 to 600)  
 $= 50\ 000 + 7\ 000 + 700 + 40 + 9$

**Step 4:**  $= \underline{57\ 749}$

**Method 2:** Expanded column method

Steps 2 and 3 assists to keep track of the different place value parts:

$$\begin{aligned} 34\ 387 &= 30\ 000 + 4\ 000 + 300 + 80 + 7 \\ +23\ 362 &= \underline{20\ 000 + 3\ 000 + 300 + 60 + 2} \\ &= 50\ 000 + 7\ 000 + 600 + 140 + 9 \text{ (transfer 100 from 140 to 600)} \\ &= 50\ 000 + 7\ 000 + 700 + 40 + 9 \\ &= \underline{57\ 749} \end{aligned}$$

**Method 3** Adding on by breaking down the second number to be added.

**Example 3**

$$34\ 387 + 23\ 365 \rightarrow 34\ 387 + 20\ 000 \rightarrow 54\ 387 + 3000 \rightarrow 57\ 387 + 300 \rightarrow 57\ 687 + 60 \rightarrow$$

$$57\ 747 + 2 = 57\ 749$$

**Activity 2**

1. Calculate  $28\ 638 + 47\ 287$  by using the methods above.
2. Use the inverse of addition to check if the answer is correct.



## HOME-SCHOOLING: GRADE 5 MATHEMATICS WORKSHEETS:

### TOPIC: WHOLE NUMBERS – Addition and Subtraction

#### Activity 1

This activity assesses the skill of subtracting on from the given number according to place value parts. It can be done as a mental activity.

#### 1. Complete the table below:

Number	Subtract 10	Subtract 100	Subtract 1 000	Subtract 10 000
18 210				
17 540				
14 590				
13 900				
10 030				

Study the following methods and do the activity below:

**Method 1** Breaking down both numbers to subtract using compensation and building up

**Step 1** Break both numbers down into their place value parts.

**Step 2:** Subtract each kind of place value part separately, subtract thousands from thousands, hundreds from hundreds, tens from tens and units to units.

**Step 3:** Make transfer if it is necessary.

**Step 4:** Combine the parts to build up the answer.

#### Example1:

Calculate  $98\,748 - 45\,684$

**Step1:**  $98\,748 = 90\,000 + 8\,000 + 700 + 40 + 8 - 40\,000 - 5000 - 600 - 80 - 4$

**Step 2:**  $90\,000 + 8\,000 + 600 + 140 + 8 - 40\,000 - 5\,000 - 600 - 80 - 4$

**Step 3**  $(90\,000 - 40\,000) + (8\,000 - 5\,000) + (600 - 600) + (140 - 80) + (8 - 4)$   
 $= 50\,000 + 3\,000 + 0 + 60 + 4$

**Step 4 =** 53 064

## Method 2 Expanded column method

### Example

Steps 2 and 3 assists to keep track of the different place value parts:

$$\begin{aligned} 98\ 748 &= 90\ 000 + 8\ 000 + 700 + 40 + 8 \\ &= 90\ 000 + 8\ 000 + 600 + 140 + 4 \text{ (transfer 100 from 700 to 40)} \\ - 45\ 684 &= \underline{40\ 000 + 5\ 000 + 600 + 80 + 4} \\ &= 50\ 000 + 3\ 000 + 0 + 60 + 4 \\ &= \underline{53\ 064} \end{aligned}$$

**Method 3** Subtracting by breaking down the second number to be subtracted.

### Example 3

$$\begin{aligned} 98\ 748 - 40\ 000 &\rightarrow 58\ 748 - 5\ 000 \rightarrow 53\ 748 - 600 \rightarrow 53\ 148 - 80 \rightarrow 53\ 068 - 4 \\ &= 53\ 064 \end{aligned}$$

Or

$$\begin{aligned} &(98\ 748 - 40\ 000) - 5\ 000 - 600 - 80 - 4 \\ &= (58\ 748 - 5\ 000) - 600 - 80 - 4 \\ &= (53\ 748 - 600) - 80 - 4 \\ &= (53\ 148 - 80) - 4 \\ &= 53\ 068 - 4 \\ &= \underline{53\ 064} \end{aligned}$$

## Activity 2

- Calculate **73 856 – 21 334** by using the methods above.
- Use inverse of addition to check if the answer is correct.

**Example:**  $98748 - 45684 = 53064$

This can be checked by adding 53064 and 45684  
 $53\ 064 + 45\ 684 = \mathbf{98\ 748}$

## Activity 3

- Calculate the following by breaking down both numbers to subtract
  - $89\ 324 - 58\ 732$
  - $91\ 265 - 19\ 562$
- Calculate the following by breaking down the second number to be subtracted.
  - $60\ 073 - 28\ 028$
  - $62\ 891 - 37\ 108$
- Calculate the following by using the expanded vertical method
  - $30\ 314 - 12\ 242$
  - $59\ 832 - 32\ 895$
- Use inverse of addition to check if the answers are correct.



## HOME-SCHOOLING: GRADE 5 MATHEMATICS WORKSHEETS:

### TOPIC: WHOLE NUMBERS – Addition and Subtraction

#### Activity 1

**Example:** Adding using expanded vertical column

a)  $32\ 746 + 23\ 226$

$$\begin{aligned} 32\ 746 &= 30\ 000 + 2\ 000 + 700 + 40 + 6 \\ 23\ 226 &= \underline{20\ 000 + 3\ 000 + 200 + 20 + 6} \\ &= 50\ 000 + 5\ 000 + 900 + 60 + 12 \text{ (transfer 10 from 12 to 60)} \\ &= 50\ 000 + 5\ 000 + 900 + 70 + 2 \\ &= \underline{55\ 972} \end{aligned}$$

Addition is an inverse of subtraction **e.g.**  $55\ 972 - 32\ 746 = 23\ 226$   
 $23\ 226 + 32\ 746 = 55\ 972$

**Example** subtracting using expanded vertical column

b)  $49\ 678 - 23\ 749$

$$\begin{aligned} 49\ 678 &= 40\ 000 + 9\ 000 + 600 + 70 + 8 \\ &= 40\ 000 + 9\ 000 + 600 + 60 + 18 \text{ (transfer 10 from 70 to 8)} \\ &= 40\ 000 + 8\ 000 + 1\ 600 + 60 + 18 \text{ (transfer 1000 from 9 000 to 600)} \\ - 23\ 749 &= \underline{20\ 000 + 3\ 000 + 700 + 40 + 9} \\ &= 20\ 000 + 5\ 000 + 900 + 20 + 9 \\ &= \underline{25\ 929} \end{aligned}$$

**Example**  $25\ 929 + 23\ 749 = 49\ 678$   
 $49\ 678 - 23\ 749 = 25\ 929$  or  $49\ 678 - 25\ 929 = 23\ 749$

3. Calculate the following numbers by using the method above.

a)  $23\ 481 + 29\ 340$

b)  $32\ 869 - 30\ 975$

#### Activity 2

1. Calculate b and c below using a as an example

Do the calculations in brackets first, then work out the answers?

$$\begin{aligned} \text{a) } & (54\ 764 - 23\ 324) + (36\ 869 - 32\ 153) \\ &= 31\ 440 \quad + 4\ 716 \\ &= \underline{36\ 156} \end{aligned}$$



- b)  $(54\,764 + 36\,869) - (32\,153 + 23\,324)$   
c)  $(54\,764 - 32\,153) + (36\,869 - 23\,324)$

### Activity 3

1. Calculate b below by working out the answer from left to right as in a

a)  $69\,346 + 23\,458 - 45\,735 - 18\,576$   
 $= (92\,804 - 45\,735) - 18\,576$   
 $= 47\,069 - 18\,576$   
 $= \underline{28\,493}$

b)  $69\,346 - 18\,576 + 23\,458 - 45\,735$

### Activity 4

- Read the statement with understanding (what picture do you see in your mind?)
  - Underline the key words
  - Identify the operation to be used
  - Write a number sentence
  - Solve the problem using any method shown above.
- a) Owami sold her old furniture for **R56 775**. She bought herself a new bedroom suit for **R24 999**. How much money is she **left** with?
- b) Mr. Cotton earns R57 912 per year and Mr. Williams earns R10 272 more per year. Work out how much Mr. Williams earns per year?
- c) A road athlete has already run 12 754m of a 20 000m. How far does he still have to run?