25SCHOOLS

FREE LEARNING NOTES FOR ZAMBIA

GRADE 2 · TERM 1

Mathematics

Addition

Lesson notes for learners · Competence-Based Curriculum

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We add every day when we count sweets, mangoes or coins. In this note you will add bigger numbers, learn two rules of addition and meet fun ways to add. Feel each number with your fingers as you read.

AFTER THESE NOTES YOU SHOULD BE ABLE TO

- Add two numbers with and without carrying
- Add numbers up to 999
- Use the order rule and the zero rule
- Use number trees, number wheels and magic squares to add

KEY WORDS

Addition	Putting numbers together to find the total.
Carrying	Moving ten ones to the tens place as one ten.
Total	The answer when we add.
Number tree	A tree with a total at the top and two numbers on its branches.

1 Adding without carrying and with carrying

Write the bigger numbers one under the other. Ones go under ones. Tens go under tens. Always start with the ones.

Add 23 and 14. Ones: 3 and 4 make 7. Tens: 2 and 1 make 3. The total is 37. Nothing was carried.

Add 27 and 15. Ones: 7 and 5 make 12. Write 2 in the ones place. Carry 1 ten to the tens place. Tens: 2 and 1 and the carried 1 make 4. The total is 42.

Think of 12 as 1 ten and 2 ones. That is why we carry the ten.

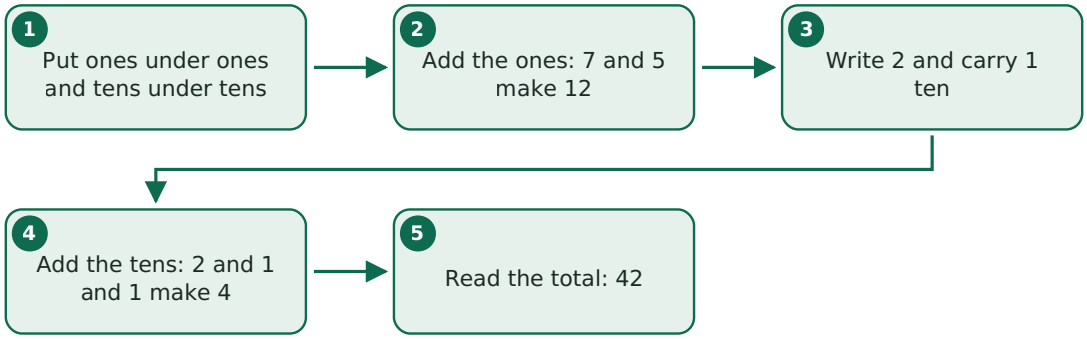


Figure 1. Steps for adding 27 and 15

2 Adding hundreds, tens and ones

Numbers up to 999 have hundreds, tens and ones. Add ones first, then tens, then hundreds.

Add 214 and 135. Ones: 4 and 5 make 9. Tens: 1 and 3 make 4. Hundreds: 2 and 1 make 3. The total is 349.

Use tactile place value cards to feel the hundreds, tens and ones as you add.

Place	214	135	Total
Hundreds	2	1	3
Tens	1	3	4
Ones	4	5	9

Figure 2. Adding 214 and 135

3 Two rules of addition

Rule one: changing the order of the numbers does not change the total. 3 and 2 make 5. 2 and 3 also make 5.

Rule two: adding zero does not change the number. 5 and 0 make 5. 0 and 9 make 9.

You have 3 mangoes and a friend gives you 2 more. You have 5. If you count the 2 first and then the 3, you still have 5.

4 Fun ways to add

A number tree has a total at the top. The branches hold two numbers that join to make the total. On a tree with 7 at the top, one branch is 3 and the other is 4.

A number wheel has a number in the centre. Pairs around it make the centre number. With 6 in the centre, 2 and 4 make 6. 1 and 5 make 6.

A magic square is a grid where every row and column has the same total. In a grid with the row 2, 7 and 6 the total is 15. Feel the grid and count with counters to check.

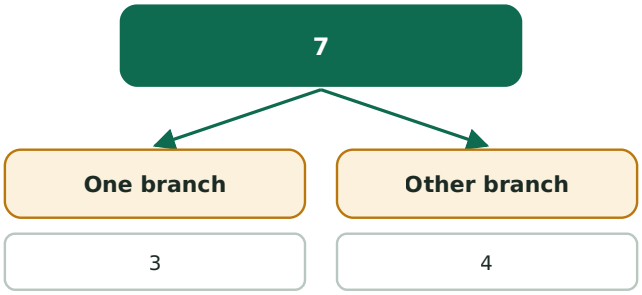


Figure 3. A number tree for 7

TRY THIS

Ask a friend for two numbers under 50. Write them one under the other. Add them and say if you carried a ten. Then swap the order of the numbers and check that the total is the same.

REMEMBER

- Add ones first, then tens, then hundreds
- Carry one ten when the ones make 10 or more
- Changing the order of numbers does not change the total
- Adding zero does not change the number
- Number trees, wheels and magic squares are fun ways to add

? Check yourself

1. Add 23 and 14.
2. What is 5 and 0 together.

3. What do we do when the ones make 12.
4. On a number tree with 7 at the top, one branch is 3. What is the other branch.
5. Mulenga has 27 sweets and his sister gives him 15 more. His teacher asks the class to find how many he has. (a) Which place do we add first. (b) Do we carry a ten. (c) What is the total.
6. Chanda adds 214 and 135 using place value cards. Her friend asks how she did it. (a) What does she add first. (b) What is the total of the hundreds. (c) What is the final total.

ANSWERS

1. 37.
2. 5.
3. Write 2 in the ones place and carry 1 ten.
4. 4.
5. (a) The ones place. (b) Yes, 7 and 5 make 12. (c) 42.
6. (a) The ones: 4 and 5. (b) 2 and 1 make 3. (c) 349.

Written by 25Schools to follow the Grade 2 Mathematics syllabus of the Zambian competence-based curriculum. Free for learners to read, download and share. More notes and quizzes at 25schools.com.