



keycompetences

## Calculate the cost of living for a family in Germany using an Excel spreadsheet

2021-1-DE02-KA220-  
ADU-000028281

Creating a new way of  
improving the key  
competencies of adults



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# Preface

Understanding the economic realities of a new country is essential for successful integration. This includes understanding the costs that I will need to generate for my living expenses.

Fixed monthly costs are only those costs that occur on a regular basis each month. These are the things I need to do to live a normal life for myself and my family.

All other costs, such as furnishings, holidays and special expenses, must be calculated separately. It is best to set aside a certain amount of money each month for special expenses.

A spreadsheet like Excel is an easy way to keep track of these expenses. Excel is free to use with a Microsoft account.

# Aims and Objectives

By the end of the session you will be able to:

- You know the monthly costs for a family in Germany.
- You know the difference between fixed and variable costs.
- You can use a spreadsheet to calculate your fixed costs.
- You can use a spreadsheet to see how much money you have left over for variable costs.

# Using Microsoft Excel

You need a Microsoft account to use Excel for free.

With your Microsoft Account, you can log in at <https://www.office.com>.

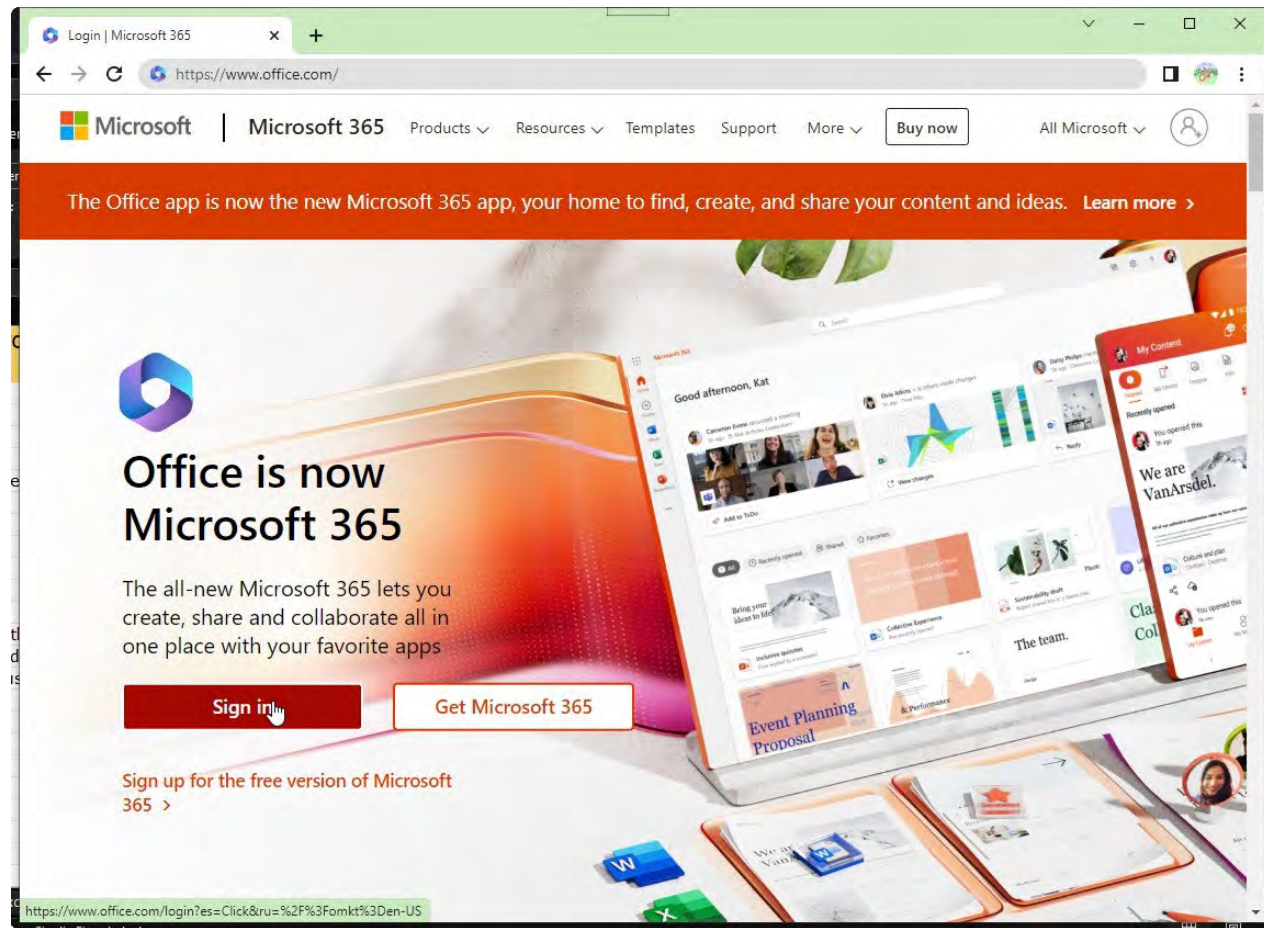
You will then be able to use Microsoft Office products for free.

This is explained in detail on the following pages.

# Using Microsoft Excel

Login or create a new Microsoft account

If you already have a Microsoft account, you can sign in directly or create a new account.

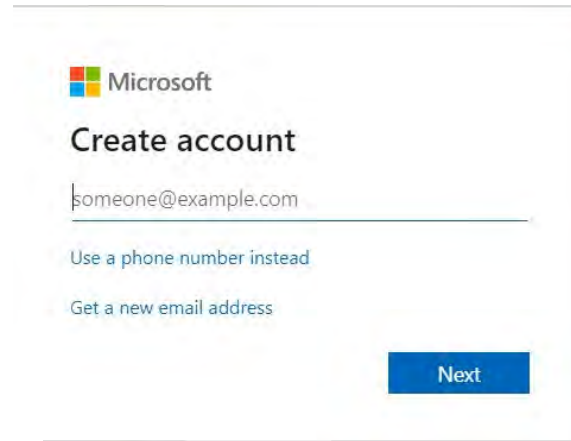


The screenshot shows the Microsoft 365 login page in a web browser. The browser's address bar displays "https://www.office.com/". The page features a navigation bar with the Microsoft logo, "Microsoft 365", and links for "Products", "Resources", "Templates", "Support", and "More". A "Buy now" button is also present. Below the navigation bar, a red banner reads: "The Office app is now the new Microsoft 365 app, your home to find, create, and share your content and ideas. Learn more >". The main content area has a large graphic of a laptop displaying the Microsoft 365 interface. The text "Office is now Microsoft 365" is prominently displayed. Below this, a paragraph states: "The all-new Microsoft 365 lets you create, share and collaborate all in one place with your favorite apps". Two buttons are visible: a red "Sign in" button and a white "Get Microsoft 365" button. At the bottom, there is a link: "Sign up for the free version of Microsoft 365 >". The browser's address bar at the bottom shows the URL: "https://www.office.com/login?es=Click&ru=%2F%3Fomkt%3Den-US".

# Using Microsoft Excel

Create a new Microsoft account

If you need to register a new account, you will need to provide an email address or phone number and then set your password.



The screenshot shows the Microsoft account creation interface. At the top left is the Microsoft logo. Below it, the text "Create account" is displayed. A text input field contains the email address "someone@example.com". Below the input field are two links: "Use a phone number instead" and "Get a new email address". At the bottom right of the form is a blue button labeled "Next".

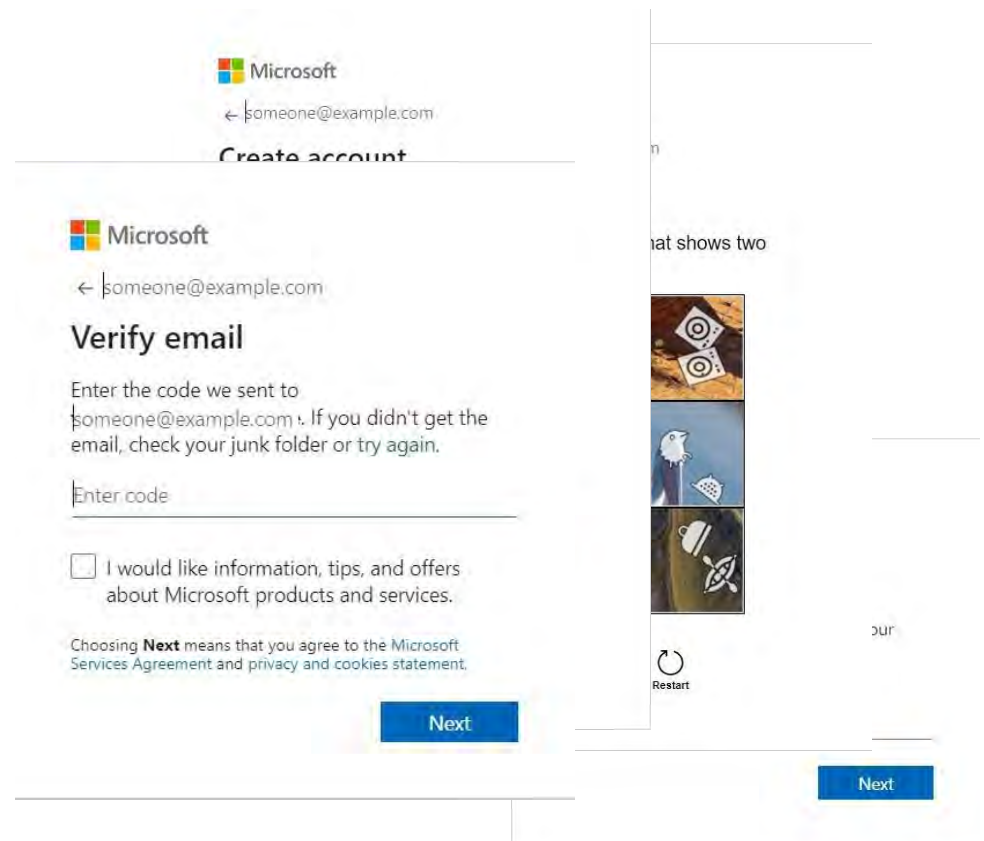


The screenshot shows the second step of the Microsoft account creation process. At the top left is the Microsoft logo. Below it, the text "Create a password" is displayed. Above the password input field is a back arrow and the email address "someone@example.com". The instruction "Enter the password you would like to use with your account." is shown above the input field. The password field contains a series of dots. Below the input field is a checkbox labeled "Show password". At the bottom right of the form is a blue button labeled "Next".

# Using Microsoft Excel

Create a new Microsoft account

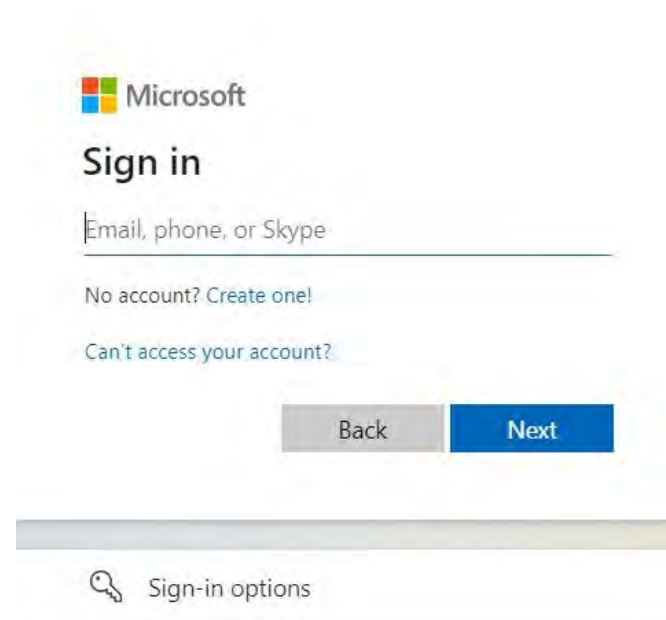
After entering your date of birth, you will receive a verification code by mail or text. Once you enter this and answer a few questions, you will be taken to the Microsoft 365 welcome page.



# Using Microsoft Excel

Login with your Microsoft account

If you already have a Microsoft account, sign in with your email address/phone number and password to get to the Microsoft 365 welcome page.



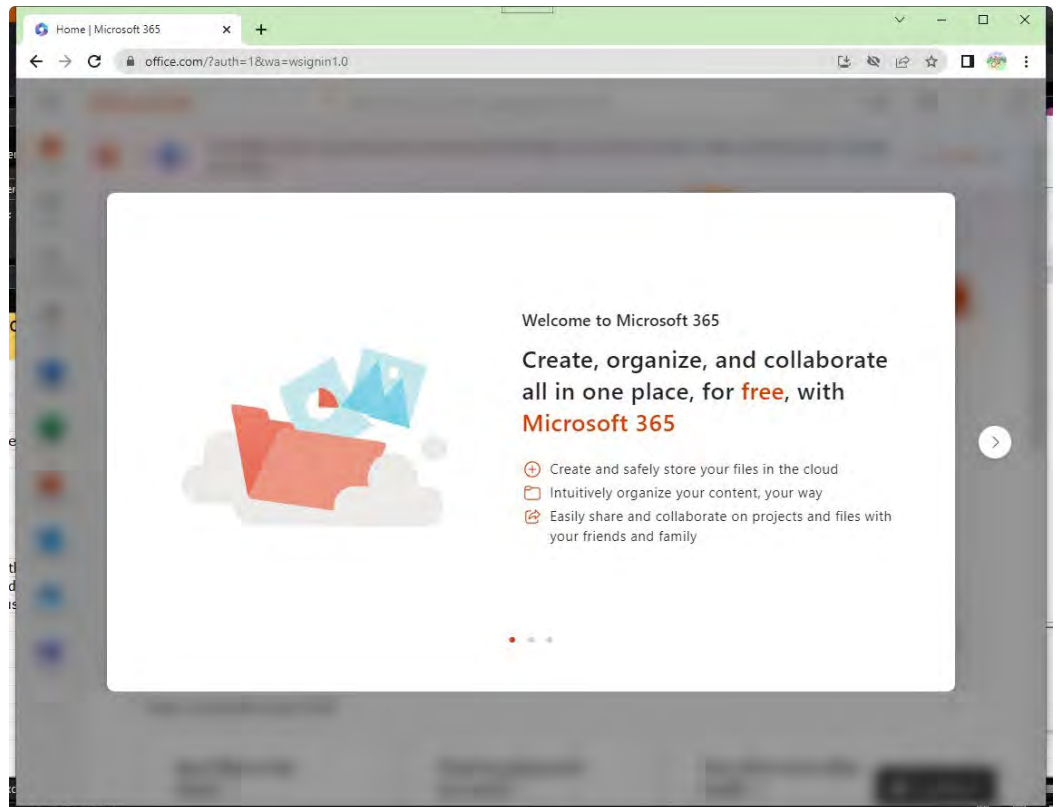
The screenshot shows the Microsoft sign-in interface. At the top left is the Microsoft logo. Below it is the text "Sign in". There is a text input field with the placeholder text "Email, phone, or Skype". Below the input field are two links: "No account? Create one!" and "Can't access your account?". At the bottom of the sign-in area are two buttons: "Back" and "Next". Below the sign-in area is a horizontal line, and below that is a search icon followed by the text "Sign-in options".



# Using Microsoft Excel

Login with your Microsoft account

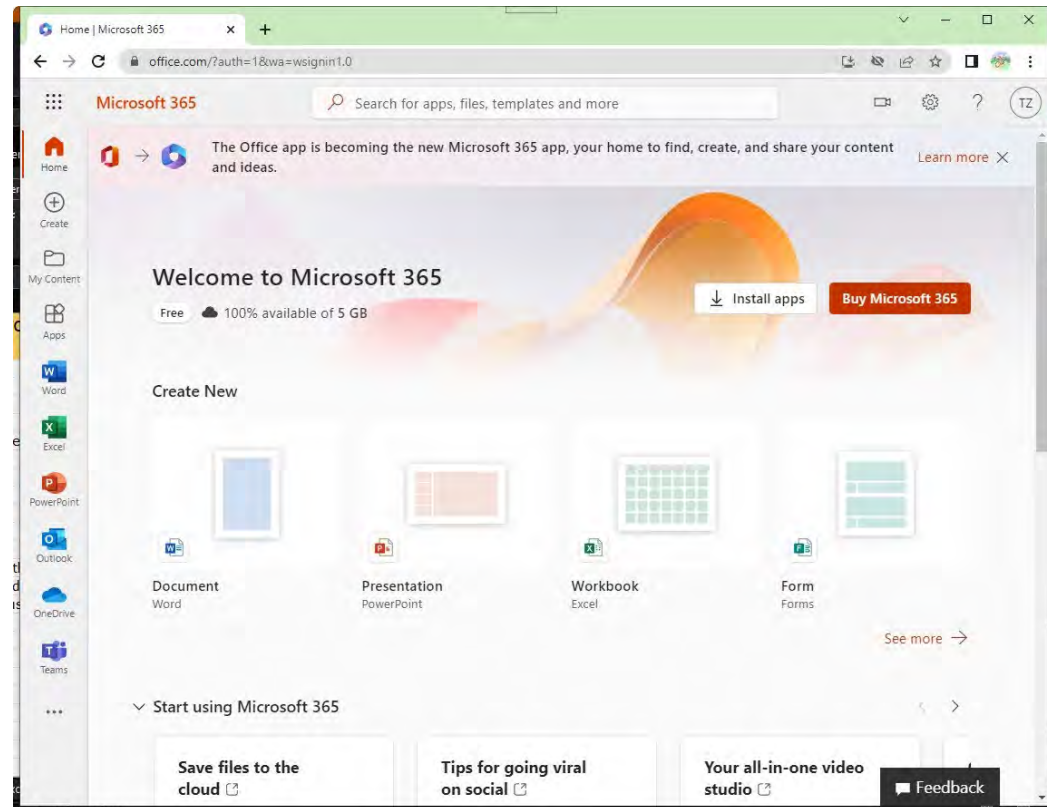
You can read the Welcome pages and then click to close them.



# Using Microsoft Excel

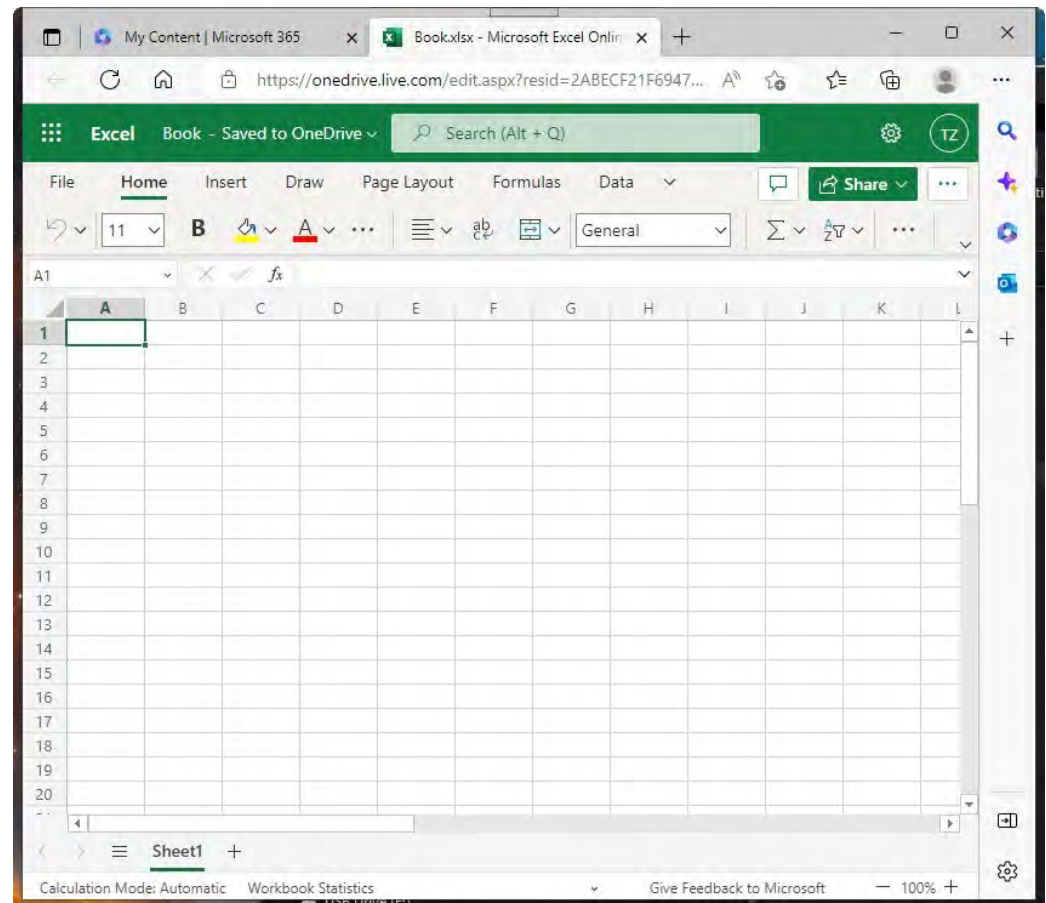
Starting with Excel

We are now on the Microsoft 365 home page. Here we can create a new workbook to work with.



# Using Microsoft Excel

The data from this course can be entered into this table and the functionality of Excel can be tested.



# Monthly Fix Costs

Let's take a look at the fixed monthly costs

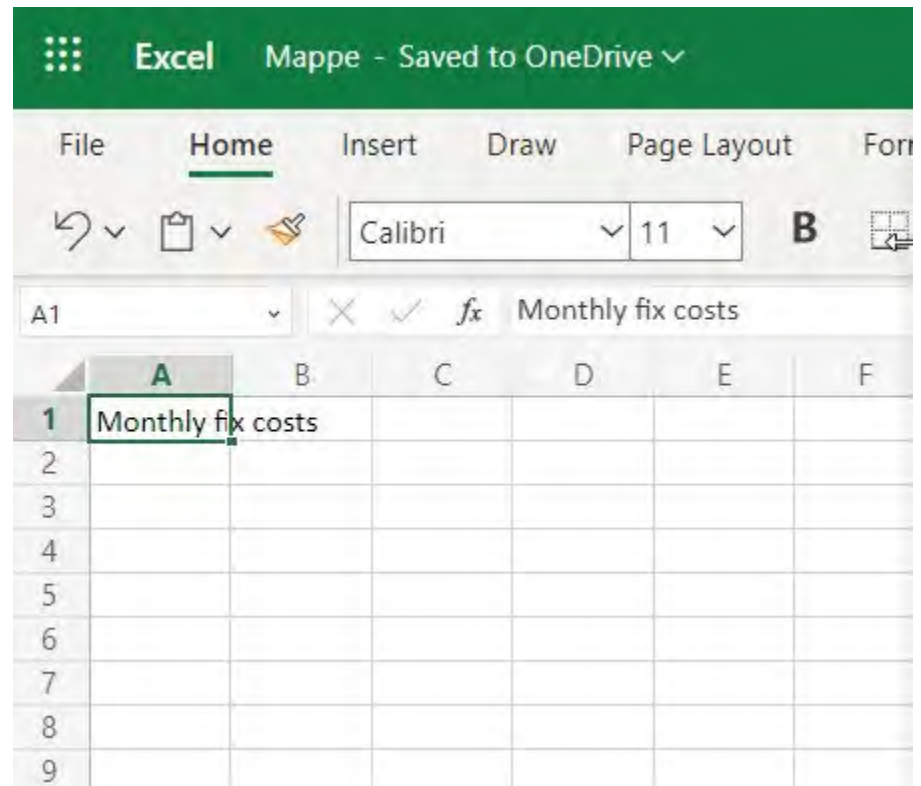
- Monthly rent
- Electricity
- Water/Sewage
- Heating costs
- Refuse
- Telephone/Mobile
- Internet access
- Insurance (car, liability, etc.)
- Kindergarten/School

There may be other costs such as loan repayments, etc.

# Monthly Fix Costs

How a table is organized

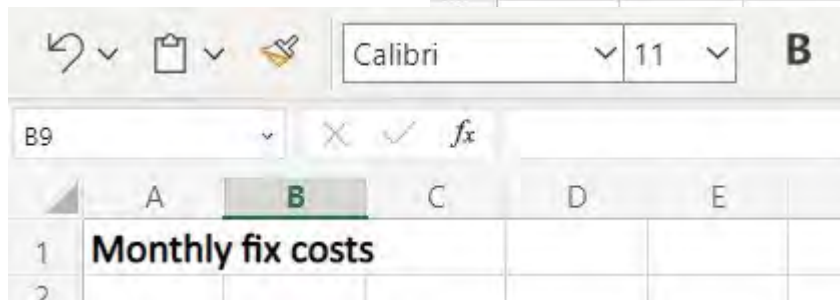
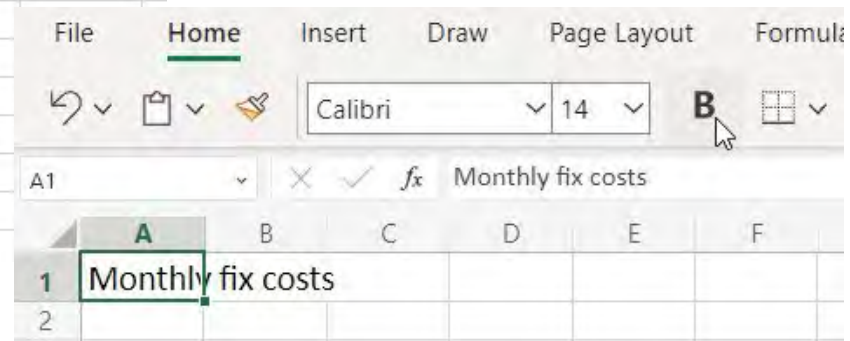
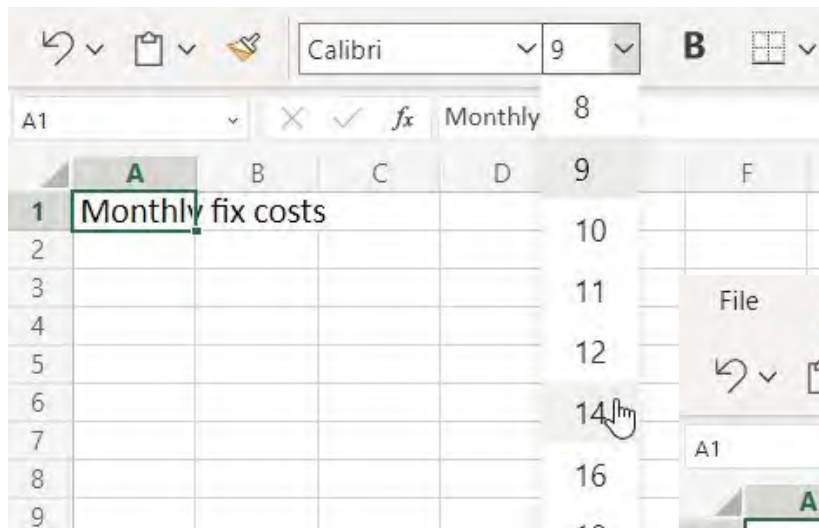
The cells of a spreadsheet are defined by their column and row. In a spreadsheet, columns are identified by letters and rows by numbers. The first cell in the top left-hand corner is cell A1. In it we write 'Monthly Fix Costs' as the heading.



# Monthly Fix Costs

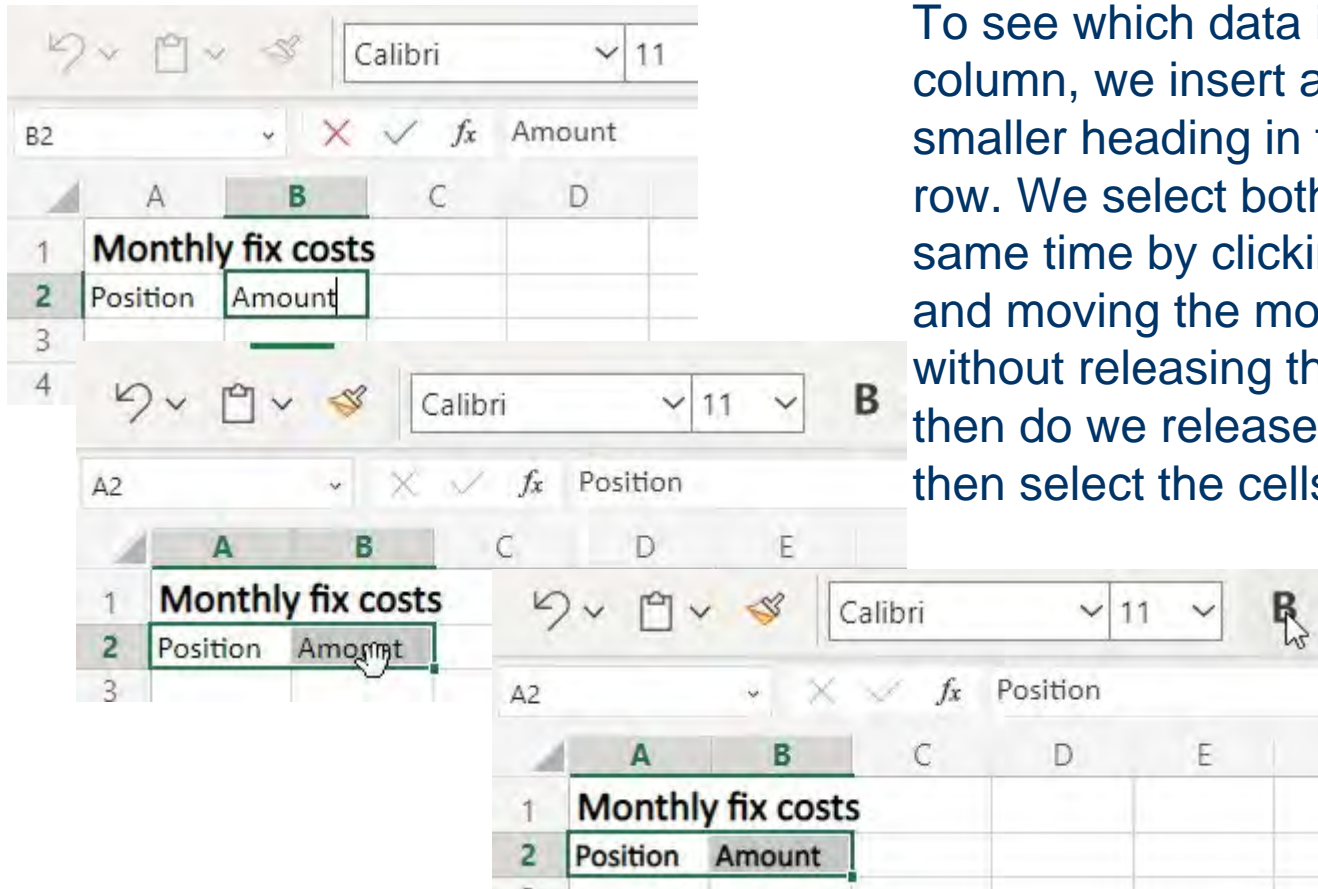
Creating a headline

To make the text recognisable as a heading, select the cell, change the font size to 14 and make it bold.



# Monthly Fix Costs

Creating a headline



To see which data is in which column, we insert another, smaller heading in the second row. We select both cells at the same time by clicking in cell A2 and moving the mouse to cell B2 without releasing the button. Only then do we release the key. We then select the cells as 'Bold'

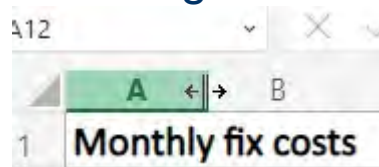


# Monthly Fix Costs

Insert the positions

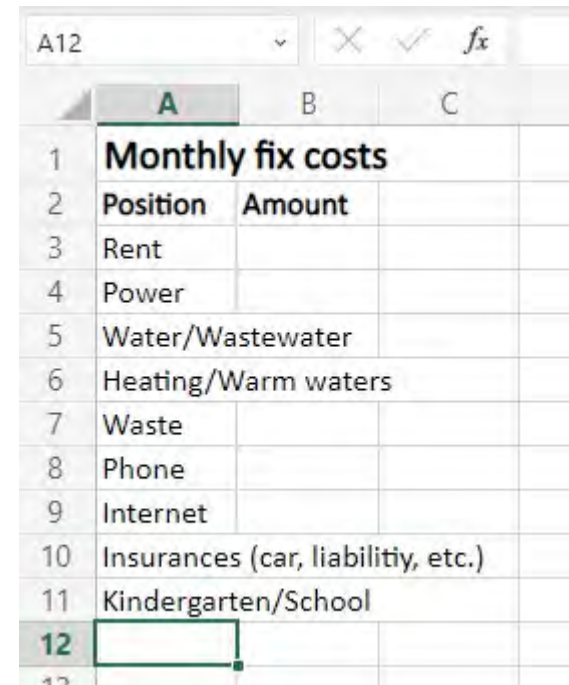
We now enter the items of our fixed monthly costs in cells A3 to A11.

By double-clicking between columns A and B



The width of column A is adjusted to fit its content.

	A	B
1	<b>Monthly fix costs</b>	
2	<b>Position</b>	<b>Amount</b>
3	Rent	
4	Power	
5	Water/Wastewater	
6	Heating/Warm waters	

A screenshot of the full Excel spreadsheet showing the data entered in the previous steps. The spreadsheet has columns A, B, and C, and rows 1 through 12. The data is as follows:

	A	B	C
1	<b>Monthly fix costs</b>		
2	<b>Position</b>	<b>Amount</b>	
3	Rent		
4	Power		
5	Water/Wastewater		
6	Heating/Warm waters		
7	Waste		
8	Phone		
9	Internet		
10	Insurances (car, liability, etc.)		
11	Kindergarten/School		
12			



# Monthly Fix Costs

Insert the amounts

Next, we insert the amounts of the individual items into the table

	A	B
1	Monthly fix costs	
2	Position	Amount
3	Rent	750
4	Power	100
5	Water/Wastewater	40
6	Heating/Warm waters	120
7	Trash	20
8	Phone	50
9	Internet	50
10	Insurances (car, liability, etc.)	100
11	Kindergarten/School	80
12		
13		

# Monthly Fix Costs

Changing the visible number format

By right-clicking on column B, we can change the number format displayed.

The screenshot shows an Excel spreadsheet with the following data:

	A	B
1	<b>Monthly fix costs</b>	
2	<b>Position</b>	<b>Amount</b>
3	Rent	750
4	Power	100

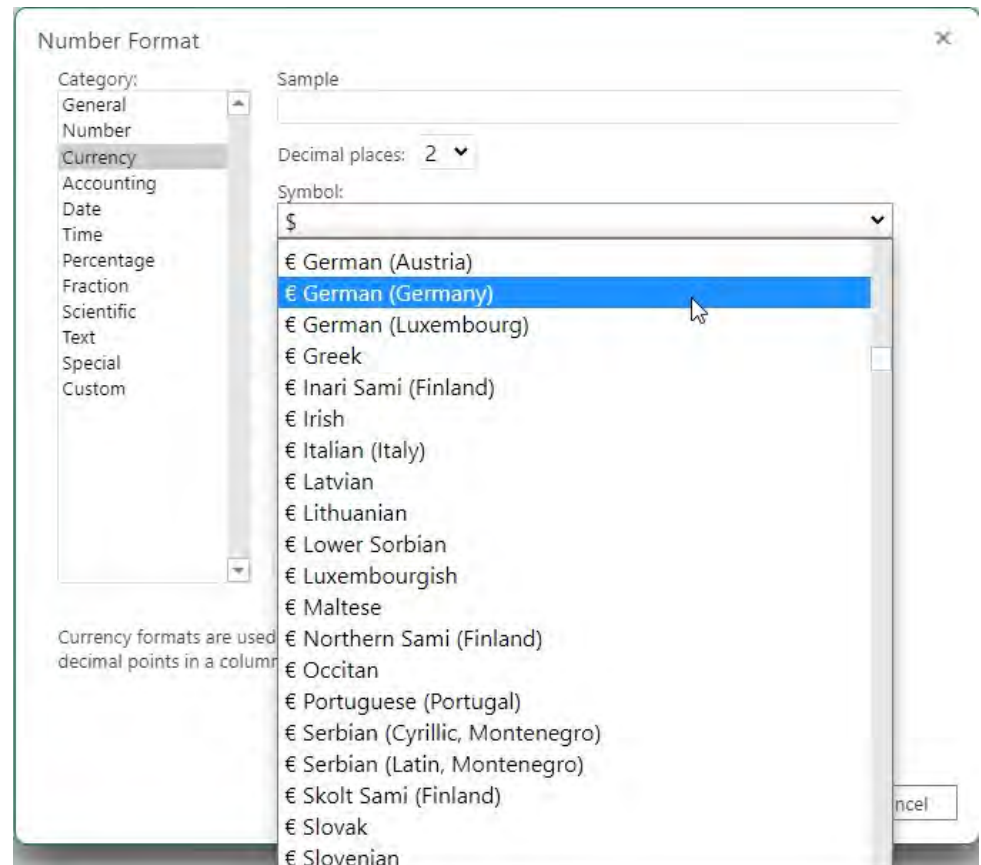
The context menu for column B is open, showing the following options:

- Search the menus
- Cut
- Copy
- Paste Options
- Insert Columns
- Delete Columns
- Clear Contents
- Column Width...
- Hide Columns
- Unhide Columns
- Number Format...** (highlighted)
- Show Changes

# Monthly Fix Costs

Changing the visible number format

We select the currency € German (Germany) as the format for the column.

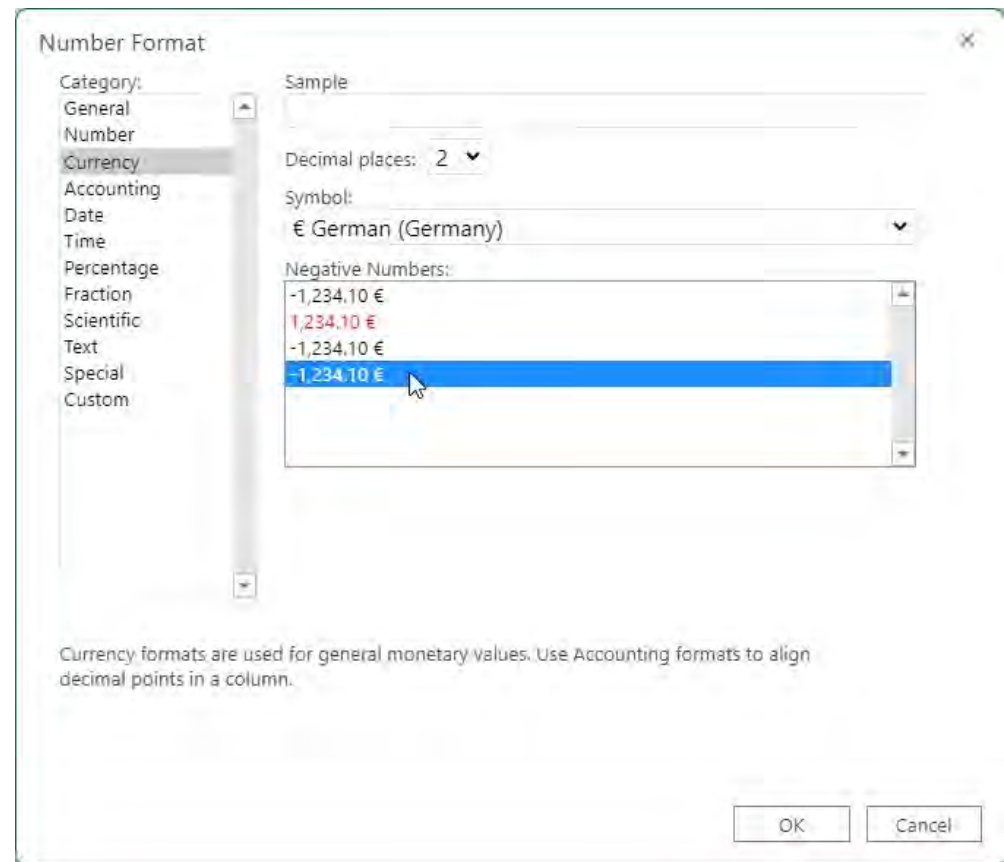


# Monthly Fix Costs

Changing the visible number format

And for the negative values, the lowest selection with the negative amounts displayed in red with a minus sign.

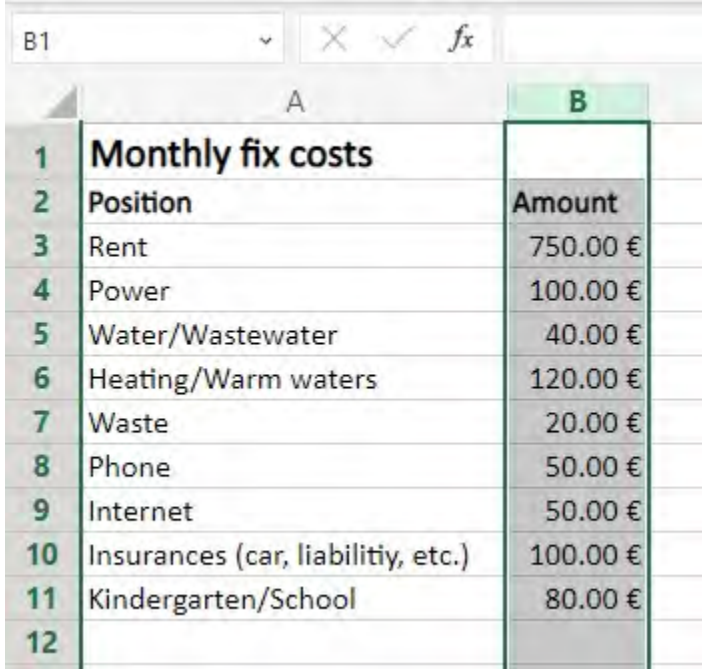
**-1,234.00 €**



# Monthly Fix Costs

Changing the visible number format

We get a display showing our amounts with two decimal places and the currency sign.

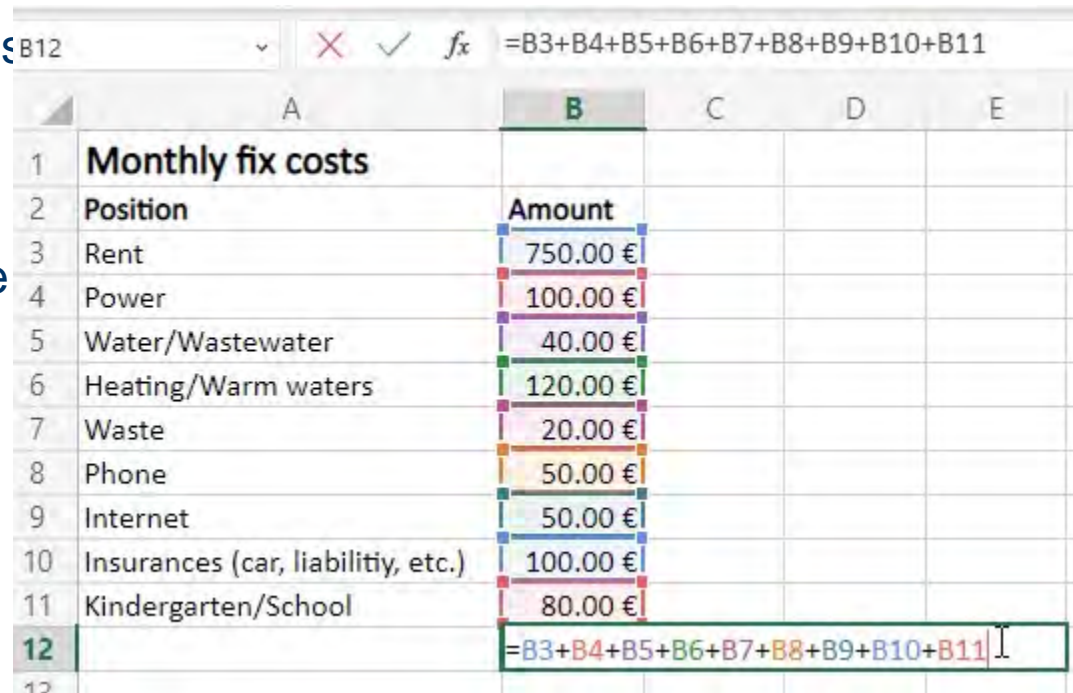


	A	B
1	<b>Monthly fix costs</b>	
2	<b>Position</b>	<b>Amount</b>
3	Rent	750.00 €
4	Power	100.00 €
5	Water/Wastewater	40.00 €
6	Heating/Warm waters	120.00 €
7	Waste	20.00 €
8	Phone	50.00 €
9	Internet	50.00 €
10	Insurances (car, liability, etc.)	100.00 €
11	Kindergarten/School	80.00 €
12		

# Monthly Fix Costs

Calculate the sum

The advantage of a spreadsheet is that we can enter calculations. When we type a cell, we start our entry with a '=', the program recognises that a mathematical formula is coming. For a calculation, we can refer directly to other cells to other cells. The '+' sign means addition. We are calculating the sum of all the amounts we have entered.



The screenshot shows a spreadsheet with the following data:

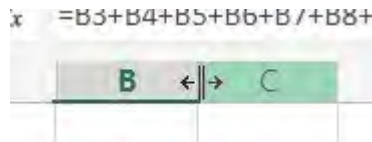
	A	B	C	D	E
1	<b>Monthly fix costs</b>				
2	<b>Position</b>	<b>Amount</b>			
3	Rent	750.00 €			
4	Power	100.00 €			
5	Water/Wastewater	40.00 €			
6	Heating/Warm waters	120.00 €			
7	Waste	20.00 €			
8	Phone	50.00 €			
9	Internet	50.00 €			
10	Insurances (car, liability, etc.)	100.00 €			
11	Kindergarten/School	80.00 €			
12		<b>=B3+B4+B5+B6+B7+B8+B9+B10+B11</b>			

The formula bar at the top shows the formula: `=B3+B4+B5+B6+B7+B8+B9+B10+B11`

# Monthly Fix Costs

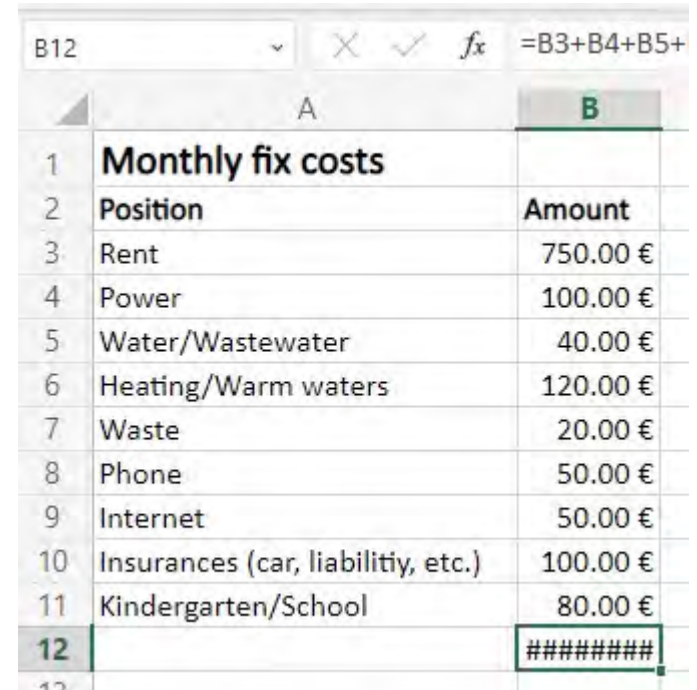
Calculate the sum

The display '#####' means that the value can no longer be displayed because it is too wide. Double-click between columns 'B' and 'C'.



We can have it adjusted automatically.

10	Insurances (car, liability, etc.)	100.00 €
11	Kindergarten/School	80.00 €
12		1,310.00 €



	A	B
1	<b>Monthly fix costs</b>	
2	<b>Position</b>	<b>Amount</b>
3	Rent	750.00 €
4	Power	100.00 €
5	Water/Wastewater	40.00 €
6	Heating/Warm waters	120.00 €
7	Waste	20.00 €
8	Phone	50.00 €
9	Internet	50.00 €
10	Insurances (car, liability, etc.)	100.00 €
11	Kindergarten/School	80.00 €
12		#####



# Monthly Fix Costs

Calculate the sum

To calculate a sum, Excel offers a simplified input function.

10	Insurances (car, liability, etc.)	100.00 €
11	Kindergarten/School	80.00 €
12		=SUM(
13		SUM(number1, [number2], ...)
14		
15		Description
16		Adds all the numbers in a range
17		Example
18		=SUM(A1:A3)
19		

The SUM() function can be used to specify a range of cells over which the sum is to be calculated.

B12		X	✓	fx	=SUM(B3:B11)
	A	B	C		
1	<b>Monthly fix costs</b>				
2	<b>Position</b>	<b>Amount</b>			
3	Rent	750.00 €			
4	Power	100.00 €			
5	Water/Wastewater	40.00 €			
6	Heating/Warm waters	120.00 €			
7	Waste	20.00 €			
8	Phone	50.00 €			
9	Internet	50.00 €			
10	Insurances (car, liability, etc.)	100.00 €			
11	Kindergarten/School	80.00 €			
12		=SUM(B3:B11)			



# Monthly Fix Costs

Calculate the sum

The advantage of this approach is that the value of the calculation (in this case the total) is automatically adjusted when the value in a cell changes. For example, here I have increased the rent to €1,000.00 and the total has automatically adjusted to €1,560.00.

	A	B
1	<b>Monthly fix costs</b>	
2	<b>Position</b>	<b>Amount</b>
3	Rent	1,000.00 €
4	Power	100.00 €
5	Water/Wastewater	40.00 €
6	Heating/Warm waters	120.00 €
7	Waste	20.00 €
8	Phone	50.00 €
9	Internet	50.00 €
10	Insurances (car, liability, etc.)	100.00 €
11	Kindergarten/School	80.00 €
12		1,560.00 €

# Variable Monthly Costs

Monthly variable costs may include

- Food, drink, tobacco
- clothing
- Care and beauty products
- Fuel, car costs, transport
- Repairs
- Leisure, entertainment, culture
- Savings for holidays, furniture, unexpected costs etc.

This list may not be complete.

# Variable Monthly Costs

Insert the positions

We add two new variable cost lines in rows 14 and 15

11	Kindergarten/School	80.00 €
12		1,310.00 €
13		
14	<b>Monthly variable costs</b>	
15	<b>Position</b>	<b>Amount</b>
16		
17		


and enter our positions. We may need to adjust the width of the column if the text of a position has become too long.

14	<b>Monthly variable costs</b>	
15	<b>Position</b>	<b>Amount</b>
16	Food, drink, tobaccos	
17	Clothing	
18	Care and beauty products	
19	Fuel, car costs, traffic	
20	Repairs	
21	Leisure, entertainment, culture	
22	Savings for vacation, furniture, unexpected costs etc.	
23		

# Variable Monthly Costs

Insert the amounts

The next step is to enter the amounts we think we will need for the different items.

14	<b>Monthly variable costs</b>	
15	<b>Position</b>	<b>Amount</b>
16	Food, drink, tobaccos	550.00 €
17	Clothing	220.00 €
18	Care and beauty products	110.00 €
19	Fuel, car costs, traffic	300.00 €
20	Repairs	200.00 €
21	Leisure, entertainment, culture	400.00 €
22	Savings for vacation, furniture, unexpected costs etc.	200.00 €
23		

# Variable Monthly Costs

Calculate the sum of the variable amounts

And let's work out again how much we need each month.

14	Monthly variable costs	
15	Position	Amount
16	Food, drink, tobaccos	550.00 €
17	Clothing	220.00 €
18	Care and beauty products	110.00 €
19	Fuel, car costs, traffic	300.00 €
20	Repairs	200.00 €
21	Leisure, entertainment, culture	400.00 €
22	Savings for vacation, furniture, unexpected costs etc.	200.00 €
		<code>=SUM(B16:B22)</code>

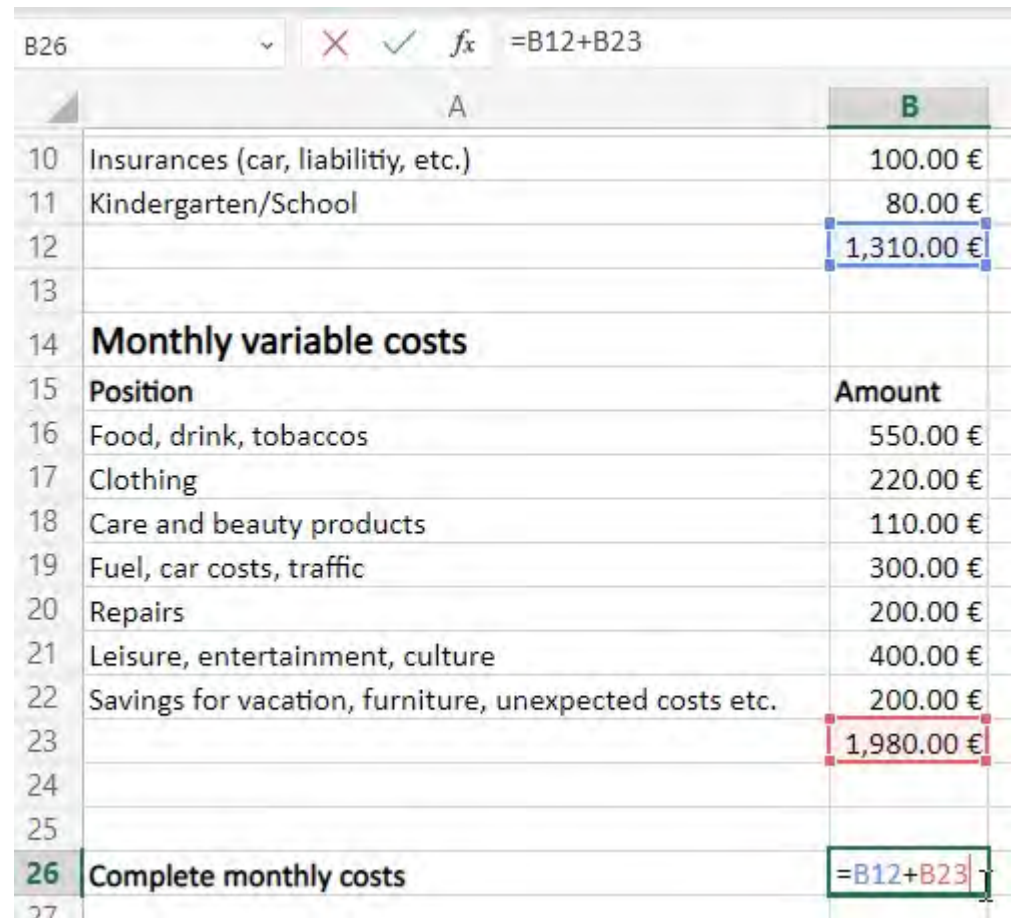
14	Monthly variable costs	
15	Position	Amount
16	Food, drink, tobaccos	550.00 €
17	Clothing	220.00 €
18	Care and beauty products	110.00 €
19	Fuel, car costs, traffic	300.00 €
20	Repairs	200.00 €
21	Leisure, entertainment, culture	400.00 €
22	Savings for vacation, furniture, unexpected costs etc.	200.00 €
23		1,980.00 €

# Monthly costs

Calculate the sum of the monthly costs

We are interested in the total monthly cost.

To do this, we insert the text 'Total monthly cost' in cell A26 and the formula '=B12+B23' in cell B27, so that we get the total cost.



The screenshot shows an Excel spreadsheet with the following data:

	A	B
10	Insurances (car, liability, etc.)	100.00 €
11	Kindergarten/School	80.00 €
12		1,310.00 €
13		
14	<b>Monthly variable costs</b>	
15	<b>Position</b>	<b>Amount</b>
16	Food, drink, tobaccos	550.00 €
17	Clothing	220.00 €
18	Care and beauty products	110.00 €
19	Fuel, car costs, traffic	300.00 €
20	Repairs	200.00 €
21	Leisure, entertainment, culture	400.00 €
22	Savings for vacation, furniture, unexpected costs etc.	200.00 €
23		1,980.00 €
24		
25		
26	Complete monthly costs	=B12+B23
27		

The formula bar at the top shows the formula '=B12+B23' for cell B27. The spreadsheet also shows a total of 1,310.00 € in cell B12 and 1,980.00 € in cell B23.

# Monthly costs

Calculate the sum of the monthly costs

So we see that with the estimated costs we need a monthly amount of 3.290,00 €

14	Monthly variable costs	
15	Position	Amount
16	Food, drink, tobaccos	550.00 €
17	Clothing	220.00 €
18	Care and beauty products	110.00 €
19	Fuel, car costs, traffic	300.00 €
20	Repairs	200.00 €
21	Leisure, entertainment, culture	400.00 €
22	Savings for vacation, furniture, unexpected costs etc.	200.00 €
23		1,980.00 €
24		
25		
26	<b>Complete monthly costs</b>	<b>3,290.00 €</b>
27		



# Monthly costs

Calculate the sum of the monthly costs

We can now use the entered amounts a little with the amounts entered, e.g. resolve not to smoke, drive less and spend less on leisure and

and entertainment. When we change these amounts we can see the results immediately in our total costs.

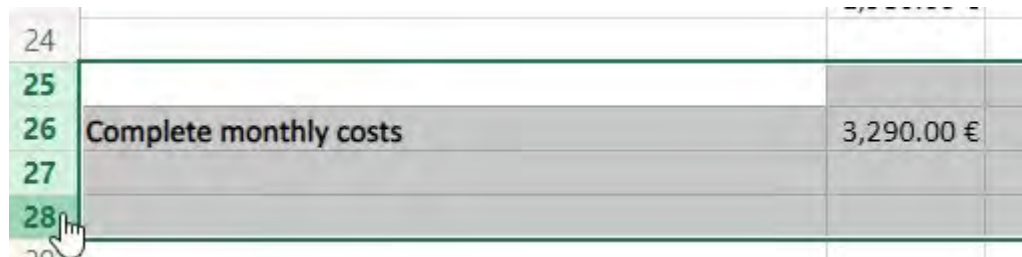
14	Monthly variable costs	
15	Position	Amount
16	Food, drink, tobaccos	400.00 €
17	Clothing	220.00 €
18	Care and beauty products	110.00 €
19	Fuel, car costs, traffic	200.00 €
20	Repairs	200.00 €
21	Leisure, entertainment, culture	200.00 €
22	Savings for vacation, furniture, unexpected costs etc.	200.00 €
23		1,530.00 €
24		
25		
26	Complete monthly costs	2,840.00 €
27		



# Monthly costs

Calculate the sum of the monthly costs

The last step is to add the household's income. To do this, we select 4 rows by clicking on the number 25 of row 25, holding down the mouse button and moving it to 28.



24		
25		
26	Complete monthly costs	3,290.00 €
27		
28		

# Monthly costs

Calculate the sum of the monthly costs

We then right-click on the marked area and select 'Insert Rows' from the shortcut menu.

10	Insurances (	100.00 €
11	Kindergarte	80.00 €
12		1,310.00 €
13		
14	<b>Monthly</b>	
15	<b>Position</b>	<b>Amount</b>
16	Food, drink,	550.00 €
17	Clothing	220.00 €
18	Care and be	110.00 €
19	Fuel, car cos	300.00 €
20	Repairs	200.00 €
21	Leisure, ent	400.00 €
22	Savings for v	200.00 €
23		1,980.00 €
24		
25		
26	<b>Complete montnly costs</b>	3,290.00 €
27		
28		
29		
30		

# Monthly costs

Calculate the sum of the monthly costs

In the newly acquired cells, we enter the family's income

24		
25	Incomings	
26	Peter	2,100.00 €
27	Mary	1,200.00 €
28		
29		

and calculate the total income.

25	Incomings	
26	Peter	2,100.00 €
27	Mary	1,200.00 €
28		=SUM(B26:B27)
29		

# Monthly costs

Calculate the sum of the monthly costs

We now calculate the difference between the income and the monthly costs

25	Incomings	
26	Peter	2,100.00 €
27	Mary	1,200.00 €
28		3,300.00 €
29		
30	Complete monthly costs	3,290.00 €
31	Rest	=B28-B30
32		

and see at a glance whether our income is sufficient to cover our costs.

30	Complete monthly costs	3,290.00 €
31	Rest	10.00 €

# Monthly costs

Calculate the sum of the monthly costs

For example, if an income changes and I enter the corresponding value in the table, I can see at a glance how this will affect the result.

25	<b>Incomings</b>		
26	Peter		1,900.00 €
27	Mary		1,200.00 €
28			3,100.00 €
29			
30	<b>Complete monthly costs</b>		3,290.00 €
31	<b>Rest</b>	+	-190.00 €

# Conclusion

It is easy to keep track of your monthly costs using a spreadsheet. It gives a quick overview of a family's income and expenses and shows whether the income is enough to cover all the expenses.