

3. Menu

A restaurant needs to have good prices and healthy food to be able to keep up with its competitors.

You have to combine the base data of the menu of a restaurant into menus and determine special offers and discount prices. The source file contains the names of the foods grouped into categories, the energy content, carbohydrate content and price of one serving.

Solve the following exercises with a spreadsheet processing program.

During the solution take the followings into consideration.

- *You may perform auxiliary calculations to the right of column O or below row 60.*
- *Whenever possible, use a formula, function or reference in the solution to get the required results even if the base data are changed.*
- *There are parts in the exercise that use the results from a previous question. If you could not solve the previous part completely, use its solution as it is, or enter a reasonable result and work on with this value. This way you can receive marks for these exercise parts as well.*

1. Import text file *menusource.txt*, which is tagged by tabs and has UTF-8 encoding into the spreadsheet processor starting from cell *A1*. Save your work as *menu* in the default format of the spreadsheet processor.
 2. Column *F* of the table contains the original price of each food. The owner of the restaurant requests that the discount price is the integer part of the original price reduced by 20%, and its last digit should be changed to nine. Determine the discount price for each food in column *G* accordingly.
 3. In cell *K29* determine the highest discount price.
 4. In cell *K30* determine the name of the food with the highest discount price (if several such foods exists, determine any of these)!
 5. The guests may choose from three menus every day. These are located in column *I* and to the right of it in the table. Each menu consists of three foods. The foods are identified by their number found in column *B*. In column *J* (in ranges *J5:J7*; *J13:J15*; *J21:J23*) determine the name of the food listed in column *I* with a formula that can be copied flawlessly.
 6. In column *K* display the discount price of the food belonging to the menu with a formula that can be copied flawlessly.
 7. In column *N* determine the energy content of the food belonging to the menu with a formula that can be copied flawlessly. The energy content of the individual foods is located in column *D*.
 8. In cells *N9*; *N17*; *N25* determine the total energy content of each menu.
 9. In cells *K9*; *K17*; *K25* determine the price of each menu. The menu price is the sum of the discount price of the food belonging in to the menu rounded down to the nearest hundred.
 10. In cells *K10*; *K18*; *K26* determine the price of 20 menu servings. Apply an additional 10% discount on the menu price in this case.
-

11. Format the table according to the following description and the example:

- Align the cells of the first row and the first column centered.
- Set bold font style for the category names located in the first column.
- The numerical values in columns *F*, *G* and *K* should be displayed with thousands separation, without decimal digits and with “HUF” unit.
- From column *A* to column *N* set the column widths so that each data is readable.
- Set the style and alignment of the cells of column *I* according to the example.
- Set the cells of column *J* according to the example.
- Set the borders of the menus in accordance with the thick line of the example.
- The individual food groups should be bordered by a thick line according to the example.

12. Create a column chart on a separate sheet that shows the energy content of each dessert. The chart title should be “Energy content of desserts (kcal)”. The chart should not have a legend. The horizontal axis should contain the names of the food.

13. Highlight the columns belonging to the desserts with the lowest and highest energy content with different colours on the chart. (The highlighting does not need to follow the potential changes in base data.)

30 marks

Example:

category	no.	name	kcal	carbohydrate	price	discount price
Soups	1	Apple soup	130	9	550 HUF	449 HUF
	2	Mushroom cream soup with white wine	120	4	550 HUF	449 HUF
	3	Garlic cream soup	360	8	550 HUF	449 HUF
	4	Fruit soup	120	14	550 HUF	449 HUF
	5	Raspberry cream soup	90	6	550 HUF	449 HUF
	6	Tomato soup	310	9	600 HUF	489 HUF
	7	Leek cream soup	360	8	550 HUF	449 HUF
	8	Bramble cream soup	110	5	550 HUF	449 HUF
	9	Plum soup	110	12	550 HUF	449 HUF
	10	Tarragon chicken ragout soup	290	9	600 HUF	489 HUF
Thick soups	11	Thick squash soup with dill and meatballs	440	23	880 HUF	709 HUF
	12	Thick spinach soup with meatballs	520	7	620 HUF	730 HUF

H	I	J	K	L	M	N	O
1							
2	Menus						
3							
4	Menu A						
5	1	Apple soup	449 HUF			130	
6	22	Turkey breast fried in breadcumbes and stuffed with liver with salad	879 HUF			490	
7	57	Pancake filled with cottage cheese with strawberry sauce	389 HUF			240	
8							
9		Price of 1 serving:	1 700 HUF	Calorie content of 1 serving		860	
10		Price of 20 servings (with 10% discount)	30 600 HUF				
11							
12	Menu B						
13	10	Tarragon chicken ragout soup	489 HUF			290	
14	35	Broccoli au gretin with cheese	969 HUF			340	
15	50	Kaiser morsel	440 HUF			320	