## Excel calculations

Do each exercise under a separate Sheet in excel and give the names Task 1, Task $2, \ldots$ etc. to the sheets. All information must therefore be found in the same excel file.
Where there are x-letters in the exercises, you should enter formulas. Enter your name in the header of the fourth tab.
Submit your solutions in ItsLearning

## Task 1

- Enter the text and numbers in excel
- Create the formula for multiplikation to calculate the inventory value on row 6: activate cell D6, write =, Click on cell B6, write the multiplicator *, click on C6 and then Enter
- Copy the formula to the rows with the other chewing (bottom right corner $=>$ pull downwards)
- Calculate the sum on the row for the Sum (use Autosum)
- Make corresponding calculations for the chocolate
- Calculate the total sum in cell D23: $=$ D12+D21
- Sort the chocolate in alphabetical order
- Sort the chewing gums so that those with the lowest unit price are at the top
- Create the lines and the color of the heading and the Sum-row
- Center the headings of the columns
- Make adjustments so that the cells C6-D23 has 2 decimals

| Candystore Mums-Bums AB <br> Investment calculation |  |  |  |
| ---: | ---: | ---: | ---: |
|  | Count <br> Unit price <br> $(€)$ | Inventory value <br> $(€)$ |  |
| CHEWING GUM |  |  |  |
| Hubba-Bubba | 21 | 6,55 | xxx,xx |
| Jenkki, blue | 18 | 5 | xxx,xx |
| Jenkki, green | 9 | 5 | xxx,xx |
| Jenkki, yellow | 13 | 5 | xxx,xx |
| Sorbits | 15 | 2,73 | xxx,xx |
| Orbit | 20 | 3 | xxx,xx |

## Task 2

## Housing company Gold Budget

Population 145

Living space 3000

Water/person

$$
4
$$

| Company rent | xxx |  |  |
| :---: | :---: | :---: | :---: |
| Water charges | xxx |  |  |
| Income sum | xxx |  | C12 |
| costs |  |  |  |
| Land rent | 20400 | xx,x \% |  |
| Salaries | 12600 | xx,x \% |  |
| Street charges | 3360 | xx, $\mathrm{\%}$ \% |  |
| Heating | 25500 | xx,x \% |  |
| Electricity | 1350 | xx,x \% |  |
| Water and waste | 3530 | xx,x \% |  |
| Reparations etc | 1500 | xx, x \% |  |

Costs sum xxx

Monthly rent/m ${ }^{2} \quad \mathrm{x}, \mathrm{xx} \in$

* Calculate the Cost sum
* Enter formulas to calculate the other missing numbers ( $\mathrm{xx}, \mathrm{x}$ )
- Water charges $=12 *$ population * Water/person
- Company rent $=$ Cost sum - Water charges
- Income sum = Company rent + Water charges
- Monthly rent $/ \mathrm{m}^{2}=$ Company rent $/$ Living space / 12
- After each cost item, the percentage of cost is calculated:
- Go to cell C12
- write =
- go to cell B12
- write a division sign
- then go to cell B20 and press F4 (Cmd-T on Mac) (absolut reference!) The formula in C 12 should look like this: $=\mathrm{B} 12 / \$ \mathrm{~B} \$ 20$
- Convert to percentage.
- Copy the formula downwards
- What happens if you don't use the F4 before you copy down???
* Change the number of decimals according to the model
* Enter two blank rows on top of the sheet
* Write on the first row:

PROPERTY CARE AB

## Task 3

Create a family budget for a quarter (JAN, FEB, MAR, and SUM)
Use at least 5 income items and at least 10 cost items
The costs can for example be

The incomes can for example be

- rent
- food
- travelling
- hobbies
- (make up your own)
- salary
- 
- (make up your own)

The surplus is calculated as the difference between income and expenditure (in euros and as a percentage of income) for each month and for the quarter. Sort expenses and income separately according to the quarterly sum from largest to smallest.

## Task 4

Write the table

|  | Item A | Item B | item C | Item D | Item E |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Gross price | 11200 | 1000 | 2300 | 850 | 320 |
| Discount\% | $3 \%$ | $4 \%$ | $5 \%$ | $3 \%$ | $5 \%$ |
| Discount |  |  |  |  |  |
| Net price |  |  |  |  |  |
|  |  |  |  |  |  |
| Total discount: |  |  |  |  |  |

- Calculate the discount with formula, copy the formula to the right
- Calculate the net price with a formula and copy
- Calculate the total discount
- Center all data in the cells
- Format the table, so that it looks nice, use colors, borders etc


## Task 5

The salary for the representants for Silomex AB, is calculated as: a fixed income of $2100 €+$ a 3,5 \% provision of their sales per month.

Empoyees and their sales in mars 2020:

| Salminen | Matti | $4000 €$ |
| :--- | :--- | :--- |
| Mikkola | Simo | $12100 €$ |
| Keihänen | Maija | $10500 €$ |
| Aaltonen | Teuvo | $9350 €$ |
| Makkonen | Kylli | $9750 €$ |
| Siltanen | Esko | $8500 €$ |
| Lehto | Kai | $10500 €$ |
| Pirhonen | Kalle | $11400 €$ |
| Leino | Liisa | $7600 €$ |

Make a report that shows for every employer: sales, the fixed salary, the provision and the total salary per month. The provisionpercent $(3,5 \%)$ has to be written in a cell outside the table, so you have to use absolute reference (F4). Calculate also the average salary, the lowest salary and the higest salary per month (use the functions AVERAGE, MIN and MAX).

Those employers that has a salary below the average, gets a special remark (use IF). Sort the empoyees in alfabethic order. Design he table so that it looks nice.

## Task 6

Enter the following table

| 1 EUR is | 1,36 | USD |  |  |  |
| :--- | ---: | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |
| Item | Price/pc $\$$ Price/pc $€$ | Count | Value | Value of sum in \% |  |
| SSS | 6,7 |  | 3 |  |  |
| TTT | 8,5 |  | 5 |  |  |
| UUU | 4,9 |  | 6 |  |  |
| VVV | 10,7 |  | 4 |  |  |
| XXX | 8,55 |  | 1 |  |  |
| YYY | 9,73 |  | 9 |  |  |
| ZZZ | 3,9 |  | 8 |  |  |
|  |  |  | Sum |  |  |
|  |  |  |  |  |  |
| highest |  |  |  |  |  |
| lowest |  |  |  |  |  |
| average |  |  |  |  |  |

- Format Price / pc in \$ so that the numbers have two decimal places and the $\$$ sign is written before the numbers
- Calculate price/pc in $€$ with formula and copy down (Price in $€=$ price in $\$$ / dollar exchange rate). Format so that the $€$-sign is written after the numbers.
- Calculate the value with formula for each item when you know the unit price and the count. Copy down.
- Add the values at sum (total value).
- Calculate the value in $\%$ of the total sum.
- Pick out with function the smallest and the highes price in $\$$, and calculate with function the average value of the price.
- Create the corresponding graphs that you see below.
- Is the latter graph misleading in any way?




## Task 7

Open the file Charles.xlsx

- Copy Prov 1 to the right so that it will increase the numbers Prov 2 .... Prov 6. Rotate the text $90^{\circ}$.
- Make the cells narrower. Draw a line under the headings.
- Calculate the average for each exam. Calculate the sum and average for each student in the exams. Format to 2 decimal places.

| Name | $\begin{aligned} & \stackrel{\rightharpoonup}{2} \\ & \stackrel{0}{2} \end{aligned}$ | $\begin{aligned} & N \\ & \stackrel{\rightharpoonup}{0} \\ & \frac{0}{2} \end{aligned}$ | $\begin{aligned} & m \\ & \vdots \\ & \frac{0}{2} \\ & \hline \end{aligned}$ | $\begin{aligned} & \pm \\ & \frac{0}{2} \\ & \frac{0}{2} \end{aligned}$ | $\begin{aligned} & 1 \\ & \stackrel{0}{3} \\ & \frac{0}{2} \end{aligned}$ | $\begin{aligned} & 0 \\ & \stackrel{0}{2} \\ & \frac{0}{2} \end{aligned}$ | ¢ | 0 <br> 0 <br> 0 <br> 0 <br> 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kalle | 12 | 15 | 15 | 12 | 20 | 18 | 92 | 15,33 |
| Pelle | 8 | 9 | 6 | 11 | 12 | 9 | 55 | 9,17 |
| Lisa | 20 | 18 | 15 | 14 | 11 | 11 | 89 | 14,83 |
| Stina | 12 | 13 | 14 | 13 | 12 | 14 | 78 | 13,00 |
| Rut | 4 | 5 | 6 | 3 | 0 | 0 | 18 | 3,00 |
| Lars | 18 | 17 | 9 | 19 | 20 | 19 | 102 | 17,00 |
|  |  |  |  |  |  |  |  |  |
| Average | 12,33 | 12,83 | 10,83 | 12,00 | 12,50 | 11,83 |  |  |

- Create a graph that shows the development of each student as a line chart.
- Give the diagram the heading "IT exam" and the $y$-axis the name Points. See the models below.
- Create a bar chart with all the test scores on top of each other for each student.
- Create a pie chart that shows the average for each student in the tests. Write as a heading "Exam averages". Set the score. Draw an arrow pointing to the smallest sector and write NOTE! next to the arrow.





## Task 8

Create Graphs on the statistics below. Choose proper graphs for each table Use short and cathy headingsGe korta och träffande rubriker. Place the grafhs so that the sheet is printable. (check with preview)

| No. | Full Name | Position | Salary | Type |
| :---: | :--- | :--- | :--- | :---: |
| 1 | Bill Gates | Founder Microsoft | $\$ 1000$ |  |
| 2 | Steve Jobs | Founder Apple | $\$ 1200$ | Company Founder |
| 3 | Larry Page | Founder Google | $\$ 1100$ |  |
| 4 | Mark Zuckeberg | Founder Facebook | $\$ 1300$ |  |
| Total Expense: |  |  |  | $\$ 4600$ |


| TABLE_PRODUCT |  |  |
| :---: | :---: | :---: |
| Product ID | Color | Price |
| 1 | red, green | 15.99 |
| 2 | yellow | 23.99 |
| 3 | green | 17.50 |
| 4 | yellow, blue | 9.99 |
| 5 | red | 29.99 |


| Year | Q1 | Q2 | Q3 | Q4 | Quarterly Average |
| :---: | :--- | :--- | :--- | :--- | :--- |
| 2000 | 138.1 | 140.2 | 137.8 | 142.1 | 139.6 |
| 2001 | 144.5 | 143.2 | 148.9 | 139.9 | 144.1 |
| 2002 | 136.5 | 138.2 | 135.5 | 137.4 | 136.9 |
| 2003 | 150.4 | 150.9 | 149.3 | 152.3 | 150.7 |
| 2004 | 180.1 | 183.2 | 181.1 | 185.2 | 182.4 |
| 2005 | 135.1 | 150.2 | 132.8 | 133.8 | 138.1 |


| Customerld |  | Year | Total |
| :--- | :--- | :--- | :--- | :--- |
|  | 1 | 2010 | 13.88 |
| 1 | 2011 | 0.99 |  |
| 1 | 2012 | 15.84 |  |
| 1 | 2013 | 8.91 |  |
| 2 | 2009 | 24.75 |  |
| 2 | 2011 | 11.88 |  |
| 2 | 2012 | 0.99 |  |
| 3 | 2010 | 26.75 |  |
| 3 | 2012 | 5.94 |  |
| 3 | 2013 | 6.93 |  |
| 4 | 2009 | 10.89 |  |
| 4 | 2011 | 17.84 |  |
| 4 | 2012 | 8.91 |  |
| 4 | 2013 | 1.98 |  |

## Task 9

Search the exchange rates on Internet and enter the into the LOOKUP-table. Use the VLOOKUP function to pick the exchange rate values into the larger table.

| Loan nr | Initial. amount | Currency | Exchange rate | Amount $€$ | LOOKUP-TABLE |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 10 000,00 | USD | $\mathrm{x}, \mathrm{xxxx}$ | xxxxxx, xx | GBP | x, xxxx |
| 20 | 23 000,00 | BRL | $\mathrm{x}, \mathrm{xxxx}$ | x $x$ xxxx, $x$ x | JPY | x, xxxx |
| 30 | 455 000,00 | SEK | $\mathrm{x}, \mathrm{xxxx}$ | xxxxxx,xx | BRL | x,xxxx |
| 40 | 23 000,00 | USD | $\mathrm{x}, \mathrm{xxxx}$ | xxxxxx,xx | SEK | x,xxxx |
| 50 | 48 000,00 | GBP | $x, x x x x$ | x $x$ xxxx, $x$ x | USD | x,xxxx |
| 60 | 43 000,00 | USD | $\mathrm{x}, \mathrm{xxxx}$ | xxxxxx,xx |  |  |
| 70 | 500 000,00 | GBP | $\mathrm{x}, \mathrm{xxxx}$ | xxxxxx, $x$ x |  |  |
| 80 | 342 000,00 | SEK | $\mathrm{x}, \mathrm{xxxx}$ | xxxxxx, $x$ x |  |  |
| 90 | 30 000,00 | BRL | $x, x x x x$ | xxxxxx,xx |  |  |
| 100 | 23 400,00 | JPY | $\mathrm{x}, \mathrm{xxxx}$ | xxxxxx, $x$ x |  |  |
| 110 | 300 000,00 | JPY | $\mathrm{x}, \mathrm{xxxx}$ | xxxxxx,xx |  |  |

