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# DIDACTIC TOOLS

**Key Competence 3**  
VHS im Lkrs. Cham



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## UNIT 1

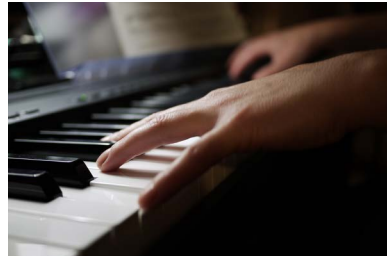
### Mathematics-Fit

**Exercise 1**

Look at the following pictures and decide if it is physical activity or a leisure activity.



Reading



playing the piano



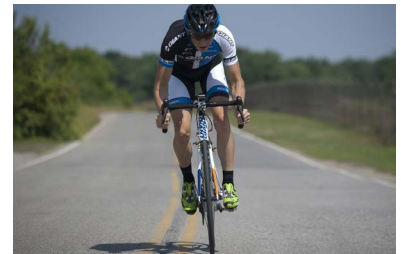
drawing



cooking



mowing the lawn



riding a bike



soccer



yoga

Physical	Leisure

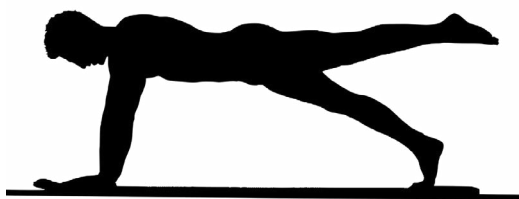
**Exercise 2**

Answer the questions with true or false about the daily exercise trends in the target country as well as exercise guidelines from the World Health Organisation.

The World Health Organisation (WHO) makes international recommendations on the amount of exercise different age groups should get per week. Adults between the ages of 18 and 64 need 150 minutes of moderate physical activity each week or 75 minutes of high intensity activity. It is also Physical activity comes in all different forms, for example: walking, dancing, gardening, hiking, household chores, sports, play and so on. Exercises improves your heart, muscles and bones. It can also reduce the risk of depression. To get even better health benefits adults should double the amount of exercise. It is important to strengthen muscles 2 or more days a week.

In Europe about a third of the population exercises at least 150 minutes per week. According to Eurostat the percent of men exercising is higher than women. Finland, Denmark and Sweden exercise the most. In Romania and Bulgaria less than ten percent of population get the recommended amount of exercise.

	True	False
WHO suggests how much exercise you should get depending on how old you are.	<input type="checkbox"/>	<input type="checkbox"/>
Adults should get at least 220 minutes of exercise per week.	<input type="checkbox"/>	<input type="checkbox"/>
Exercise leads to depression.	<input type="checkbox"/>	<input type="checkbox"/>
You should not train muscle groups regularly.	<input type="checkbox"/>	<input type="checkbox"/>
Bulgaria is more active than Sweden.	<input type="checkbox"/>	<input type="checkbox"/>





**Exercise 3**

Scenario: A good friend wants to be more active daily. She always seems to find a reason to not exercise, for example it is too cold outside, she does not have time, she must stay home with the children and so on. What can she do to be more active? Match correctly.

*Small children at home*

*It is too cold outside*

*No time*

*Take the children to a playground and play with them*

*Walk to work*

*Find a nearby fitness studio*

*Put the baby in the buggy and go for a walk*

*Find a sport course where the children can come with*

*Do some stretches while watching TV*

*Try out a winter sport activity like skiing*

*Try dancing while doing household chores*

*Visit a center which offers sport classes*

**Exercise 4**

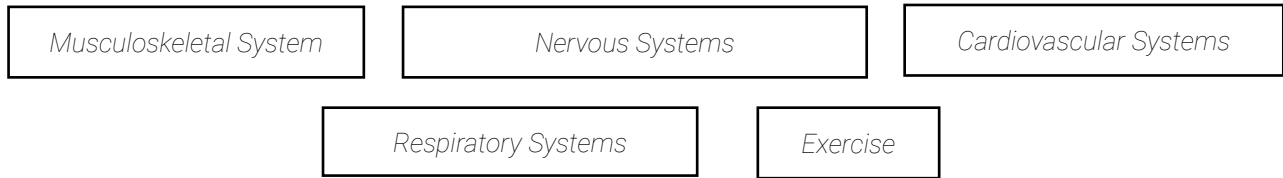
Match the body systems to their description.

<p>This system transports materials within your body and includes your heart, blood and blood vessels. It helps maintain fluid balance and aids in fighting you against infectious diseases.</p>	<p>The bones, cartilage, ligaments and muscles of your musculoskeletal system give your body shape and support, and enable voluntary movement. In addition to protecting internal organs, your bones serve as attachment points for your muscles and tendons, produce blood cells, and act as calcium and phosphorus storage banks.</p>
<p>This system includes your brain, spinal cord, nerves and sense organs, such as your eyes and ears. It receives, transmits and integrates information from inside and outside the body.</p>	<p>Your mouth, esophagus, stomach and bowels make up this system. These structures and organs enable you to take in and digest food, and absorb nutrients into the bloodstream for use by the body.</p>
<p>This system protects your body against harmful organisms, such as bacteria, viruses and parasites.</p>	<p>This system begins at your nose and includes your upper airway and lungs. The system takes in oxygen from the air you breathe and expels other gases such as carbon dioxide.</p>

<i>Musculoskeletal System</i>	<i>Nervous System</i>	<i>Respiratory System</i>
<i>Circulatory System</i>	<i>Digestive System</i>	<i>Immune System</i>

**Exercise 5**

Using the word bank, fill in the blanks:



How exercise helps your health

Whether you exercise for strength, endurance, or flexibility, the functioning of the body is related to physiological functioning. The musculoskeletal, cardiovascular, respiratory, digestive, immune, nervous, and endocrine systems are the main support systems.

The 1. \_\_\_\_\_ creates a supporting framework and protects the body’s vital organs. The bones also act as a reservoir for calcium and other minerals. Weight-bearing exercise strengthens your bones and helps prevent osteoporosis.

2. \_\_\_\_\_ also increases muscle strength, coordination, and balance. Your muscles are important to sit upright. They also produce heat. Movement of the joints fights off stiffness. Stretching exercises are good for mobility and flexibility of the joints.

At the center of the 3. \_\_\_\_\_ is your heart. Along with the blood vessels, it forms a network for carrying blood containing oxygen and nutrients to the body, and removing waste. Physical training strengthens your heart and normalizes blood pressure, lowering your risk of heart disease.

The 4. \_\_\_\_\_ consists of the brain and nerves. Its function is to receive, store, process, and send information. It controls functions such as heart rate and breathing, as well as motor movement. Exercise calms your nervous system, as a result of better circulation and reduced muscle tension, it may even improve thinking skills and enhance memory.

The endocrine system is closely associated with the nervous system. It sends hormones to the body to control growth, blood sugar levels, body temperature, and metabolism. Exercise regulates your hormonal balance, enhancing organ function and physical fitness, and lifting your mood.

The 5. \_\_\_\_\_ - The lungs provide the body with oxygen, which is necessary for cellular survival. Exercise increases the flow of oxygen-rich blood to the body and contributes to the elimination of carbon dioxide. The effects of exercise on respiration are seen almost immediately.

Your digestive system breaks down food into usable nutrients and eliminates waste products. Over time, it tends to get sluggish and works less efficiently. Exercise contributes to proper functioning of the digestive system, and aids the elimination of waste.

**Exercise 6**

Use the template and fill out your workout plan for the week.

**Workout Log**

Month/Year: \_\_\_\_\_

	Activity	Duration	Distance	Sets	Reps	Weight
Day 1						
Day 2						
Day 3						
Day 4						
Day 5						

**Exercise 7**

Match the idiomatic phrases that reference the heart.

*heavy heart*

*a big heart*

*by heart*

*young at heart*

*heart skips a beat*

*said of someone excited, frightened, or surprised*

*youthful*

*sadness*

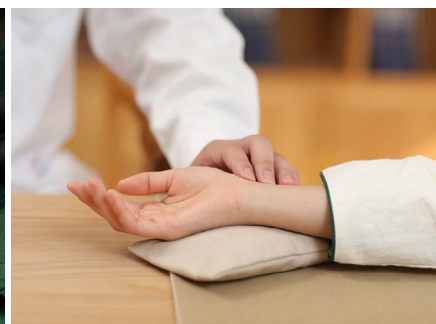
*from memory*

*said of someone kind and loving*



**Exercise 8**

Look at the following pictures. Do you know what these are?



Read the following text and answer the questions.

### The heart

A doctor uses a stethoscope to listen carefully to your heart. A healthy heart makes a lub-dub sound with each beat. This sound comes from the valves shutting on the blood inside the heart.

The first sound (the lub) happens when the mitral and tricuspid valves close. The next sound (the dub) happens when the aortic and pulmonary valves close after the blood has been squeezed out of the heart.

### Your Pulse!

Even though your heart is inside you, there is a way to know it's working from the outside. It's your pulse. You can find your pulse by lightly pressing on the skin anywhere there's a large artery running just beneath your skin. Two good places to find it are on the side of your neck and the inside of your wrist, just below the thumb.

You'll know that you've found your pulse when you can feel a small beat under your skin. Each beat is caused by the contraction (squeezing) of your heart. If you want to find out what your heart rate is, use a watch with a second hand and count how many beats you feel in 1 minute. When you are resting, you will probably feel between 70 and 100 beats per minute.

When you run around a lot, your body needs a lot more oxygen-filled blood. Your heart pumps faster to supply the oxygen-filled blood that your body needs. You may even feel your heart pounding in your chest.

1. Our heart is made of up how many valve?

- one                       two                       three                       four

2. Which of following is not a valve of the heart?

- aortic                       pulmonary                       gluteus                       mitral

3. One of best places to check your pulse is:

- thigh                       foot                       neck                       stomach

4. Running around lot makes your heat beat:

- decrease                       stable                       increase                       irregular

**Exercise 9**

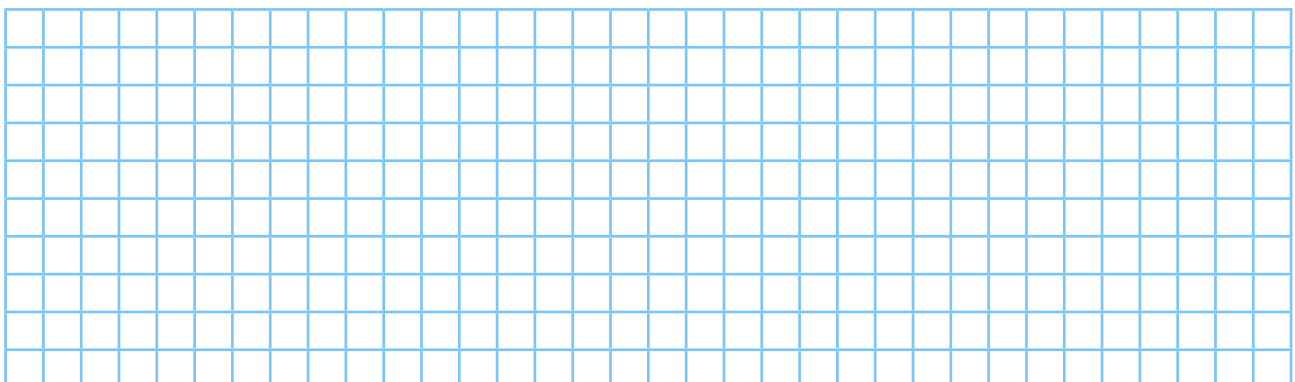
Before you get up in the morning, while you are still lying in bed, count your pulse for 60 seconds. Record the pulse rate and the date. Now record your pulse on the same day in the evening before you go to bed. Try to do this every day for at least 2 weeks. Record the information on the chart below:



Date	Time	Pulse rate
	Morning Day 1	
	Evening Day 1	
	Morning Day 2	
	Evening Day 2	
	Morning Day 3	
	Evening Day 3	
	Morning Day 4	
	Evening Day 4	
	Morning Day 5	
	Evening Day 5	
	Morning Day 6	
	Evening Day 6	
	Morning Day 7	
	Evening Day 7	

Now try to average your heart rate for in the morning and in the evening. You can find the average by adding up all the heart rate from each of the days and then dividing by the number of days you recorded your heart beat.

What is your average morning rate?	
What is your average evening rate?	



**Exercise 10**

Read the following text and select the correct title for each section.

Training Zones - Everything you need to know! - The formula for working out what your heart rate should be in the different zones is:  $MHR \times \text{Zone value (\%)}$

---

a) Training within this zone develops basic endurance and aerobic capacity. All easy recovery running should be completed at a maximum of 70 %. Another advantage to running in this zone is that while you are burning fat you may lose weight and you will be allowing your muscles to re-energise with glycogen, which has been expended during faster paced work-outs.

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b) Training in this zone will be developing your cardiovascular system. The body's ability to transport oxygen to, and carbon dioxide away from, the working muscles can be developed and improved. As you become fitter and stronger from training in this zone it will be possible to get the benefits of some fat burning and improved aerobic capacity.

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c) Training in this zone will develop your lactic acid system. In this zone your individual anaerobic threshold is found - sometimes referred to the point of deflection (POD). During these heart rates the amount of fat being utilised as the main source of energy is greatly reduced and glycogen stored in the muscle is predominantly used. One of the by-products of burning this glycogen is the runner's worst enemy, lactic acid. There is a point at which the body can no longer remove the lactic acid from the working muscles quickly enough. This happens at an individual heart rate for us all and is accompanied by a rapid rise in heart rate and a slowing of your running pace. This is your anaerobic threshold or POD.

---

d) Training in this zone will only be possible for short periods of time. It effectively trains your fast twitch muscle fibres and helps to develop speed. This zone is reserved for interval running and only the very fit are able to train effectively within this zone.

*The Aerobic Zone - 70% to 80%*

*The Anaerobic Zone - 80% to 90%*

*The Red Line Zone - 90% to 100%*

*Energy Efficient or Recovery Zone - 60% to 70%*





**Exercise 13**

Look at the following text and fill in the blanks with words from the word bank.

<i>Isaac Newton</i>	<i>Fied</i>
<i>Air</i>	<i>Generated</i>

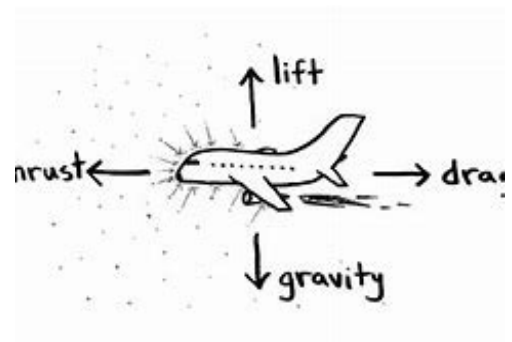
Aerodynamics is studying how 1. \_\_\_\_\_ (or gas) travels around something moving through it. Streamlining to reduce drag in vehicles is a major 2. \_\_\_\_\_ in aerodynamics. Aircraft design is another. Aerodynamics comes from Aero (Air), and Dynamic (Moving). The four forces that act on a powered aircraft are lift (force), weight, thrust, and drag. Weight is the force due to gravity. Thrust is the force 3. \_\_\_\_\_ by the engine. Lift is positive upwards force and drag is positive rearwards force. Aerodynamics is important in aerospace engineering and vehicle design, including automobiles, tall buildings, bridges and so on. In 1726, Sir 4. \_\_\_\_\_ became the first person to develop a theory of air resistance, making him one of the first aerodynamicists.

**Exercise 14**

Looking at the picture select the term to match each statement.

<i>thrust</i>	<i>drag</i>	<i>weight</i>	<i>lift</i>
---------------	-------------	---------------	-------------

- \_\_\_\_\_ is the force of gravity. It acts in a downward direction—toward the center of the Earth
- \_\_\_\_\_ is the force that acts at a right angle to the direction of motion through the air. Lift is created by differences in air pressure.
- \_\_\_\_\_ is the force that propels a flying machine in the direction of motion. Engines produce thrust.
- \_\_\_\_\_ is the force that acts opposite to the direction of motion. Drag is caused by friction and differences in air pressure.



**Exercise 15**

Read the following text and determine if the statements are true or false.

Mass is a measurement of how much matter is in an object. Mass is a combination of the total number of atoms, the density of the atoms and the type of atoms in an object. Weight on the other hand refers to the force gravity applies to an object. Since gravity varies depending on where we are weight may vary. For example if we were to weigh ourselves on the moon we would be weightless due to the absence of gravity. Although we would be weightless on the moon, our mass would be the same as an on earth because gravity does not impact what we are made up of.

	True	False
1. Mass and weight are equal.	<input type="checkbox"/>	<input type="checkbox"/>
2. Mass equals the number of atoms.	<input type="checkbox"/>	<input type="checkbox"/>
3. Weight is affected by gravity.	<input type="checkbox"/>	<input type="checkbox"/>

**Exercise 16**

Fill in the blank with a word.

All objects, including liquids, have a mass-to-volume ratio known as 1. \_\_\_\_\_. Density is a measurement for how compact (close together) the molecules in the object are.

Even though some things seem very 2. \_\_\_\_\_ (things like a paperclip or a button), they still sink in the water. Some objects that seem sort of 3. \_\_\_\_\_ (like a wooden block) probably float.

That is because whether an object sinks or floats in water does not just depend on its weight or size. It also depends on its density. Density is a measure of how 4. \_\_\_\_\_ something is. All things are made up of tiny particles called molecules. If the molecules inside an object are very close together, the item is solid, or dense. If the molecules are farther away from each other, the object is less dense, or less solid. An example of a very dense item is a penny. A cork is less dense.

Materials that are made of metal have more density than water. Their molecules are 5. \_\_\_\_\_ together than water molecules are. A cork, piece of wood, or Styrofoam float because those materials have less density than water. All the objects that were 6. \_\_\_\_\_ dense than water floated! Objects that were more dense than the water sank.

- |               |             |                |              |              |              |
|---------------|-------------|----------------|--------------|--------------|--------------|
| <i>Closer</i> | <i>Less</i> | <i>Density</i> | <i>Light</i> | <i>Heavy</i> | <i>Solid</i> |
|---------------|-------------|----------------|--------------|--------------|--------------|

**Exercise 17**

Read the follow questions and select the correct answer.

1: TWO TYPES OF DRAG: There are 2 types of drag that a sphere (ball) experiences. The first is the obvious drag due to friction. The second drag and the major one is due to the separation of the flow behind the ball. This is known as the pressure drag. If there are 560 balls, how many drags will all of these balls experience?

 a. 560

 b. 280

 c. 1120

 d. 10120

2: NO OPTICAL ILLUSION: It is no illusion that a curve ball curves. When the ball is thrown in baseball the air pressure above the ball is greater than the pressure below which causes the ball to curve downward. In the 18 m distance between the major league pitcher and batter, the curving force can move the ball down a foot or more. When the pitcher for the Giants goes to the mound and readies himself to pitch the curve ball he goes through a ritual of tapping his foot 2 times, adjusting his cap once, and licking his fingers 3 times. If during the World Series he pitches 145 curve balls, how many rituals does he do?

 a. 145

 b. 45

 c. 18

 d. 72

3: THE FLOW ASYMMETRY: There is a flow of air that goes around the baseball as it is thrown which causes it to rotate. Even if the pitcher throws the ball with no rotation there will be a rotation. The stitch pattern on the ball causes the flow asymmetry. If there are 375 stitches on each of the baseballs and there are 65 balls at a particular sporting goods store, how many stitches are on all the baseballs?

 a. 24375

 b. 375

 c. 750

 d. 130

4: THE VELOCITY OF THE WIND: The velocity of the wind increases the speed of the air traveling over a discus. This causes an increase in the lift experienced by the discus and thus a longer flight time. There are two men competing for the prize at a 3 day event and they can choose when they will throw the discus during the three day period. On the first day, the wind is 36 km an hour, on the second day the wind is 79 km an hour and on the third day the wind is 109 km an hour. On which of the days will the competitors want to throw their discus?

 a. Day 1

 b. Day 2

 c. Day 3

 d. not at all

5: THE FRISBEE LIFT: The curved upper surface of the wing of an airplane is what generates lift. The same principle applies to the Frisbee. As air passes over the curved upper surface of the Frisbee it speeds up. This creates a low pressure region on top of the Frisbee. Below the Frisbee air passes more slowly, creating a high pressure region. The difference in pressure gives the Frisbee lift. Let's say that the air pressure above the Frisbee is 10 % and below the Frisbee is 25%. What is the difference in the 2 pressures?

a. 15%

b. 35%

c. 10%

d. 5%

6: STANDARDIZED: The event of discus throwing was standardized in 1907. The men's discus weighs 4.4 pounds (2 kg) and the women's discus weighs 2.2 pounds (1 kg). If there are 189 men's discus and 332 women's discus what would the total weight in kilogram be for all the discus?

a. 853 kg

b. 143 kg

c. 710 kg

d. 378 kg





## UNIT 2

### Daily Mathematics

**Exercise 1**

Match the amounts to the corresponding bills and coins.



10 Cent

100 Euro

5 Cent

50 Euro

10 Euro

500 Euro

2 Cent

1 Euro

200 Euro

20 Cent

1 Cent

5 Euro

50 Cent

20 Euro

2 Euro



Write the amounts in words.

20 Cent	<u>twenty</u>
50 Euro	_____
500 Euro	_____
10 Cent	_____
200 Euro	_____



**Exercise 2**

Write the amounts in words.

2 € two \_\_\_\_\_

13 € \_\_\_\_\_

36 € \_\_\_\_\_

121 € \_\_\_\_\_

3457 € \_\_\_\_\_

10874 € \_\_\_\_\_

**Exercise 3**

Complete the equations below – Add and subtract the amounts on the coins.

 + 
  + 
  + 
  \_\_\_\_\_

 - 
  + 
  - 
  \_\_\_\_\_

 - 
  - 
  - 
  \_\_\_\_\_

 + 
  - 
  + 
  \_\_\_\_\_







**Exercise 7**

Look at the recipe and fill in the chart with the measurements from the recipe:

<p><b>Butter Cream</b></p> <p>500 ml milk</p> <p>54 g cornstarch</p> <p>1-2 tbsp cocoa, unsweetened</p> <p>250 g butter, room temperature</p> <p>250 g semi sweet baking chocolate</p> <p>1 tbsp sunflower oil</p> <p><b>Biscuit Cake</b></p> <p>200 g sugar</p> <p>7 eggs</p> <p>1 package vanilla sugar</p> <p>1 dash salt</p> <p>150 g flour</p>	<p><b>Make Pudding</b></p> <ul style="list-style-type: none"> <li>– Mix pudding powder with cocoa, 75 g sugar and 100ml milk.</li> <li>– Bring 400 ml milk to a boil. Remove from stove.</li> <li>– Mix in the powder and let cook for 1 min while stirring continuously.</li> <li>– Pour pudding in a bowl and cover with plastic foil right away (prevents skin building).</li> </ul> <p><b>Make Biscuit Cake</b></p> <ul style="list-style-type: none"> <li>– Separate eggs.</li> <li>– Beat egg white until firm.</li> <li>– Combine firm egg white carefully with 150 g sugar, vanilla sugar and salt. Mix well with a spoon.</li> <li>– Mix in egg yolks.</li> <li>– Sieve the flour and carefully fold in the dough.</li> <li>– Grease a 26cm springform with butter.</li> <li>– Place 5-6 Tbsp of dough evenly on the bottom of the form. Make sure the edges are not thinner than in the middle.</li> <li>– Bake on lowest grid in pre-heated oven for 5-6 min on 225C or 425 F (convection 200 C or 390 F). If you see the edges are getting brown remove it fast from oven.</li> <li>– Remove it right away from the form with a long thin knife. If you wait too long the biscuit will get hard and breaks when removing it.</li> <li>– Do this now 5 times as you need 6 thin biscuit layers (This recipe is using 6 layers), and the last layer must be a biscuit!</li> </ul> <p><b>Make the Cake</b></p> <ul style="list-style-type: none"> <li>– Beat butter creamy, add spoon by spoon the pudding. Important: Butter and pudding must have room temperature!</li> <li>– Spread a thin layer of cream on the first layer, place the other layer on top, spread the cream evenly on it and so on. At last spread the cream all around the cake; best is to use a wide knife.</li> <li>– Place cake in the fridge for at least 3 hours or over night.</li> <li>– Melt chopped chocolate and oil in a double boiler until it is melted. Pour over the cake and spread evenly all around the edges.</li> </ul>		
Liquid Measurements	Solid Measurement	Temperatures	Other

**Exercise 8**

Calculate in the units measured:

3 t = \_\_\_\_\_ kg

3.350 g = \_\_\_\_\_ kg

0.45 t = \_\_\_\_\_ kg

250 mg = \_\_\_\_\_ g

12,5 kg = \_\_\_\_\_ g

4500 kg = \_\_\_\_\_ t

4.55 kg = \_\_\_\_\_ g

2,5 Pfund = \_\_\_\_\_ kg

2 h 20 min = \_\_\_\_\_ min

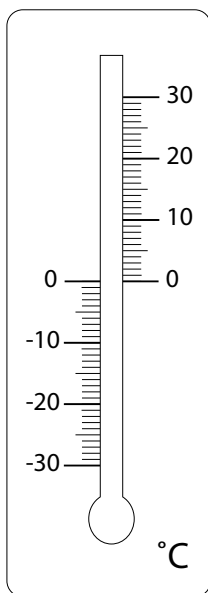
2,5 Pfund = \_\_\_\_\_ g

90 min = \_\_\_\_\_ h

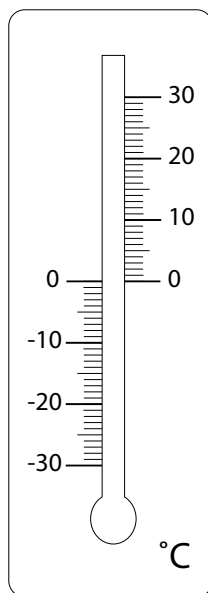
600 s = \_\_\_\_\_ min

**Exercise 9**

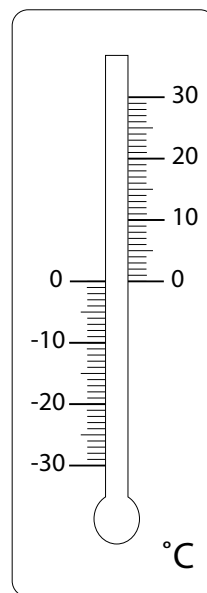
Fill in the correct values.



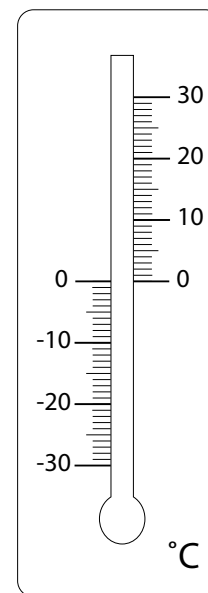
12°C



-18°C



29°C

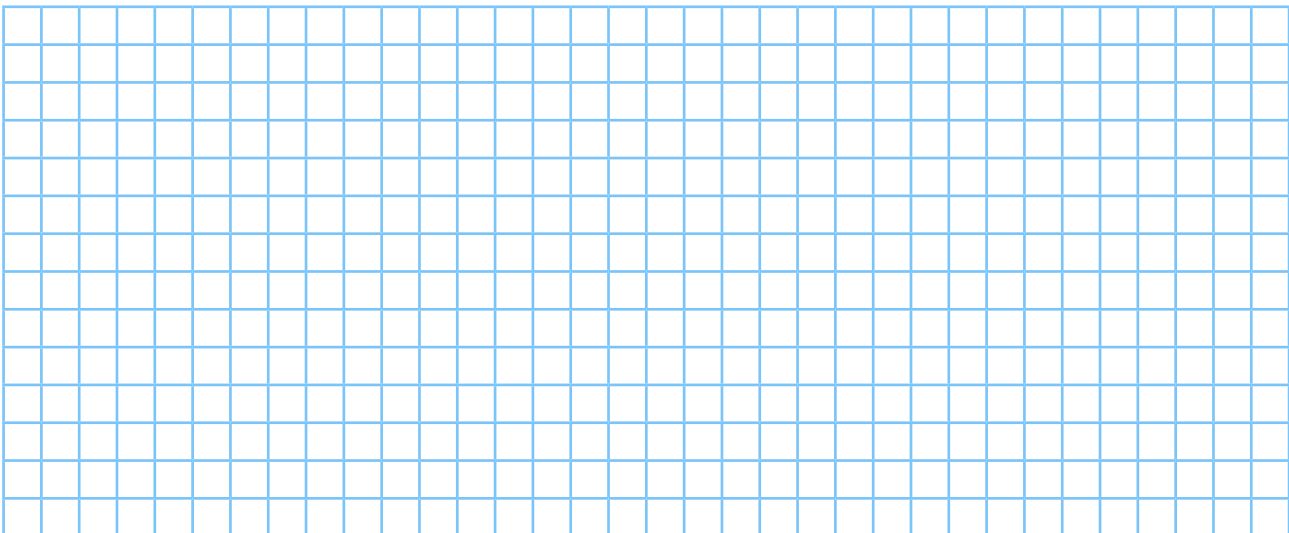


-27°C

Look at the conversion chart provided by the teacher and fill in the missing temperatures

Celsius nach Fahrenheit	Fahrenheit nach Celsius
$^{\circ}\text{F} = ^{\circ}\text{C} * 1.8 + 32$	$^{\circ}\text{C} = (^{\circ}\text{F} - 32) : 1.8$
Celsius nach Kelvin	Kelvin nach Celsius
$\text{K} = ^{\circ}\text{C} + 273$	$\text{K} - 273 = ^{\circ}\text{C}$

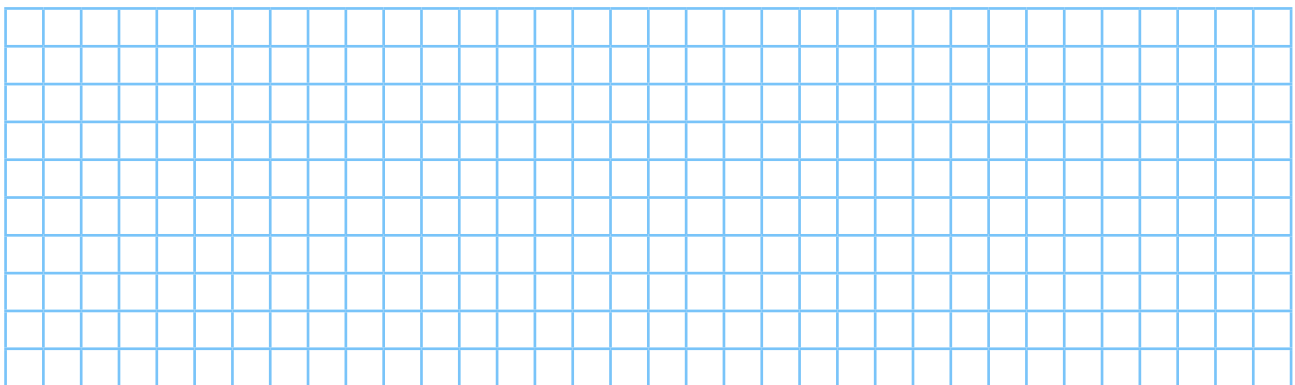
Celsius	Kelvin	Fahrenheit
100		212
	311.15	100
23		72
0	273.15	
	255.37	0



**Exercise 10**

You are planning a dinner for four adults. Below is a recipe for a single person. Calculate how much you will need for four people.

<b>Appetizer</b>	<b>Main Course</b>	<b>Side dish</b>	<b>Dessert</b>
500 g pumpkin meat (e.g. hokkaido or butternut)	4 Salmon filets	2 kg Spinach	45 g Dark chocolate
200 g cream (herbs)	40 Sage leaves	1 Onion	¼ Egg yoke
2 Liter water	1 bulb of fennel	2 TBS Olive Oil	¼ Eggs
2 Cubes broth	4 large tomatos	1 Clove of garlic	¼ TL Rum
salt	500 g Feta		100g cream
300 g Potatoes	4 Tbs Oil		
	1 Slice Ginger		



<b>Appetizer</b>	<b>Main Course</b>	<b>Side dish</b>	<b>Dessert</b>
_____ g pumpkin meat (e.g. hokkaido or butternut)	_____ Salmon filets	_____ kg Spinach	_____ g Dark chocolate
_____ g cream (herbs)	_____ Sage leaves	_____ Onion	_____ Egg yoke
_____ Liter water	_____ bulb of fennel	_____ tbs Olive Oil	_____ Eggs
_____ Cubes broth	_____ large tomatos	_____ Clove of garlic	_____ TL Rum
salt	_____ g Feta		_____ g cream
_____ g Potatoes	_____ tbs Oil		
	_____ Slice Ginger		



**Exercise 11**

Look at the following pictures and match the vocabulary.



- |             |                           |                |
|-------------|---------------------------|----------------|
| <i>food</i> | <i>mobile phone costs</i> | <i>heating</i> |
| <i>pets</i> | <i>insurance</i>          | <i>rent</i>    |

**Exercise 12**

Look at the following numbers and practice rounding.

Round to the nearest whole number:	3.59	1752.21	0.68531
Round to the greatest place:	179	623	2110

**Exercise 13**

Look at the following Monthly Spending Plan (Budget). Fill in the monthly expenses for the topics you previously matched.

Living	Monthly costs in €
Rent	
Incidentals	
Heating	
Electricity	
Telephone/Internet	
Mobile phone costs	
Sum:	

Travel expenses	Monthly costs in €
Car insurance	
Car tax	
Gasoline	
Public. Transport	
Sum:	

Insurance	Monthly costs in €
Private liability	
Household goods.	
Life insurance	
Accident insurance	
Legal protection	
Sum:	

Life entertainment	Monthly costs in €
Drinks	
Food	
Clothes	
Child care	
Pets	
Clubs	
Reserves	
Sum:	

How high are your monthly costs. Discuss







## UNIT 3

### Supermarket- Mathematics

Mathematics can be found everywhere, not just at school. On the street, at the train station, in the bank and of course in the supermarket when you go shopping. Numbers are an important part of our lives. You can make your life easier if you can calculate correctly: you count the change or calculate how much two packs of chocolates cost, you can also convert a recipe for several people.



**Exercise 1**

Read the text below.

- a) Where can you hear this text as an announcement? Discuss.
- b) Which statements are correct? Tick it.

“Dear customers! For fresh bread from our master baker, 1 loaf for only 3 Euros! Or would you rather have rolls? Today only - 5 rolls for 1.89 Euro. Also, fresh organic milk, the litre for a staggering 1.29 euros! Fancy vitamins? Today fresh from our fruit and vegetable department: German apples from Lake Constance, one kilo for only 1.99 euros! And for the barbecue: Fresh beef steaks, portioned by our butcher master, 100g for an unbeatable 2.49 Euros! Get them now!”

One loaf of bread:

- 3.50 €
- 3 €
- 3.10 €

Five fresh rolls

- 2 €
- 1.99 €
- 1.89 €

One liter of milk

- 1.92 €
- 1.29 €
- 1.09 €

One kilogram of apples

- 2.99 €
- 1.09 €
- 1.99 €

100g beef steaks

- 2.99 €
- 2.09 €
- 2.49 €



**Exercise 2**

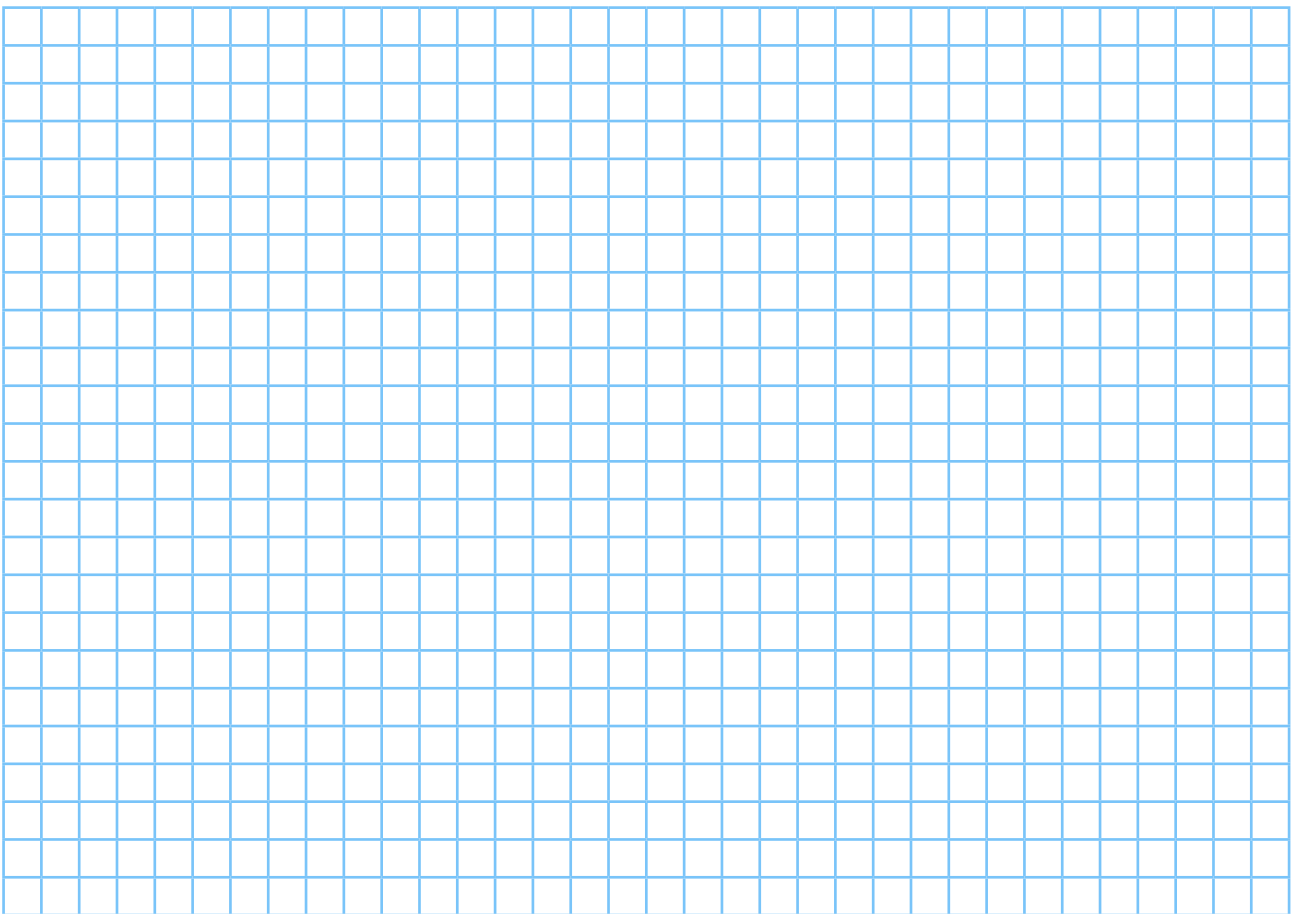
Work with the prices from exercise 1. Answer the questions below.

Use addition, subtraction, multiplication and/or division.

“What is the price for 2 litres of milk?”

“What is the price for 3 kilograms of steak?”

“What is price for half a loaf of bread?”



**Exercise 3**

Convert.

0.75 l \_\_\_\_\_ Milliliter

500 ml \_\_\_\_\_ Liter

1 pound \_\_\_\_\_ Kilogramm

1,5 l \_\_\_\_\_ Milliliter

1 pound \_\_\_\_\_ Gramm





**Exercise 4**

Look at the advertising brochures and then complete the table.

**MINI - MARKT**



1,99 €/kg



2,49 €/kg



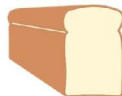
1,19 €/Stk.



1,59 €/kg



0,99 €/100g



3,00 €/kg



1,10 €/l



1,09 €/l



0,45 €/l



2,00 €/Stk.



1,89 €/kg

**MAXI-Markt**



2,10 €/kg



2,99 €/kg



0,99 €/Stk.



1,79 €/kg



1,10 €/100g



2,50 €/kg



0,99 €/l



1,25 €/l



0,50 €/l



1,89 €/Stk.

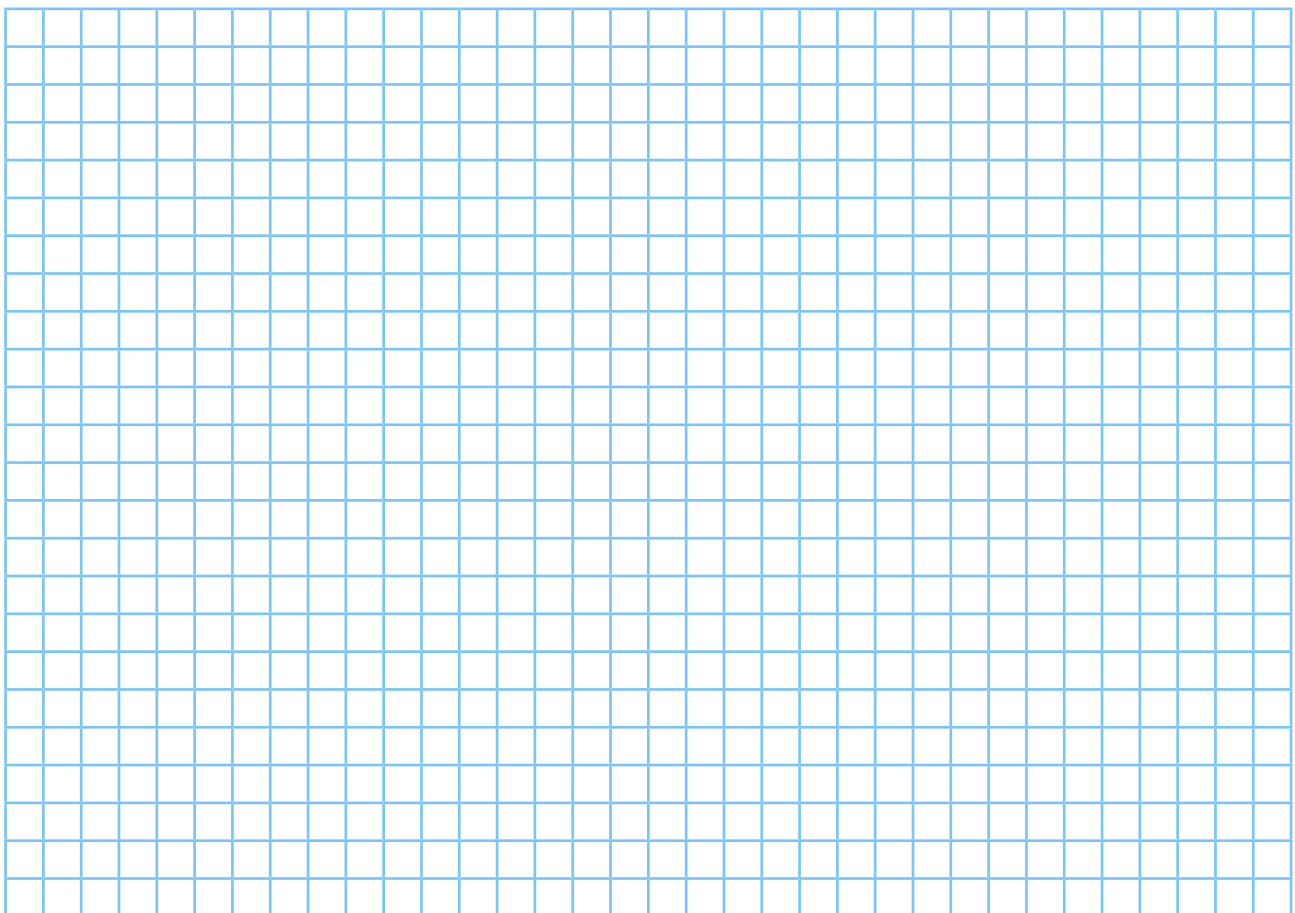


2,50 €/kg

Item	MINI-Market	MAXI-Market
apples		
bread		
milk		
water		
butter		
pasta		
salad		
jam		
pears		
juice		

Which statements are correct?

- 1) The apples are 30 cents cheaper in the mini market.
- 2) The bread in the MAXI market is 50 cents more expensive.
- 3) The milk in the mini market costs 16 cents less.
- 4) The water in the MAXI market is 10 cents more expensive.
- 5) The butter in the mini market costs 11 cents more.
- 6) The noodles in the MAXI market are more than 15 cents more expensive.
- 7) The salad in the mini market is 20 cents cheaper.
- 8) The jam costs 15 cents more in the MAXI market.
- 9) The pears cost 50 cents more in the MAXI market.
- 10) The juice is cheaper in the mini market.



**Exercise 5**

Go to three different supermarkets and enter the prices in the lists below:

Shopping list

1.5kg apples  
 2kg bananas  
 500g beef  
 2 kg pasta  
 500g yogurt  
 2l milk

Name of the supermarket:	
Price per kilo/litre	Final price
Total price for the purchase:	

Shopping list

1.5kg apples  
 2kg bananas  
 500g beef  
 2 kg pasta  
 500g yogurt  
 2l milk

Name of the supermarket:	
Price per kilo/litre	Final price
Total price for the purchase:	

Shopping list

1.5kg apples  
 2kg bananas  
 500g beef  
 2 kg pasta  
 500g yogurt  
 2l milk

Name of the supermarket:	
Price per kilo/litre	Final price
Total price for the purchase:	

Compare the prices and answer the questions:

In which supermarket was the cheapest place to shop?

---

Which supermarket was the most expensive?

---

Which item has the biggest difference in price?

---

Which item had the smallest price difference?

---



**Exercise 6**

Answer the following questions about the three supermarkets.

How long would it take to walk to the first supermarket?

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How many kilometers would you have to drive in order to visit all three supermarkets?

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Which supermarket is closest?

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Which supermarket is furthest?

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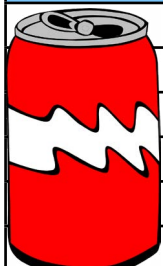



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**Exercise 7**

Sort the products. Which do you think are generic and which are the brand name products.

Which products that you "bought" in exercise 5 are no-name products and which are branded products? Assign the products correctly.

Generic	Name brand product
	

Why are the prices of generic products lower than branded products?

Discuss.

**Exercise 8**

What kind of food and drinks are hidden behind these brands? What are these brands mainly known for? Discuss. Then look at the list and connect properly.

<i>Coca-Cola</i>	<i>Nut nougat cream</i>
<i>Vittel</i>	<i>chocolates</i>
<i>Milka</i>	<i>Chocolate bars</i>
<i>Sprite</i>	<i>lemonade</i>
<i>Iglo</i>	<i>yogurt</i>
<i>Ferrero</i>	<i>mineral water</i>
<i>Nutella</i>	<i>chips</i>
<i>Mars</i>	<i>chocolate</i>
<i>Kellogg's</i>	<i>drink</i>
<i>Pringles</i>	<i>muesli</i>
<i>Danone</i>	<i>noodles</i>
<i>Barilla</i>	<i>fish fingers</i>

**Exercise 9**

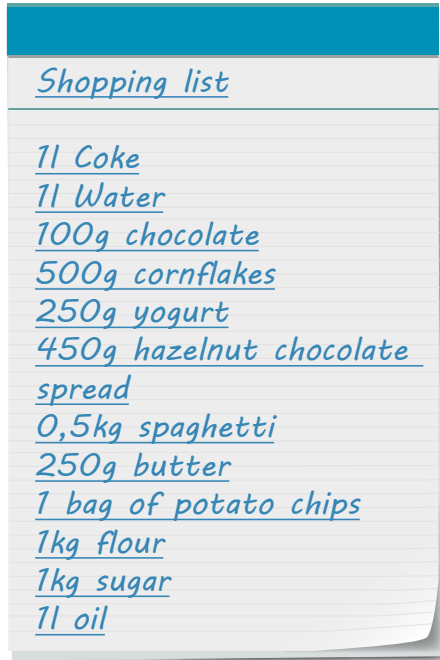
Look at the brochres and compare.

Use: *more than* *less than* *as much as*

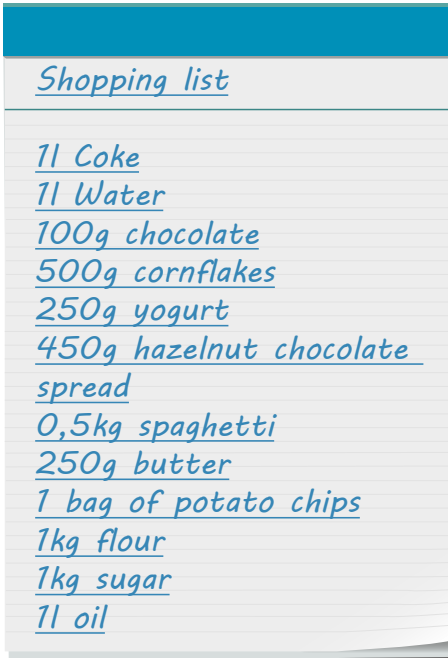
- 1) A liter of coke costs \_\_\_\_\_ a liter of water.
- 2) 100 g chocolate costs \_\_\_\_\_ 1 kg flour.
- 3) 0.5 kg of pasta costs \_\_\_\_\_ 250 g of butter.
- 4) 1 bag of chips costs \_\_\_\_\_ a kilo of flour.
- 5) 500g cornflakes cost \_\_\_\_\_ 450g nut nougat cream.

**Exercise 10**

Take a look at the advertisement you brought with you and complete the prices.



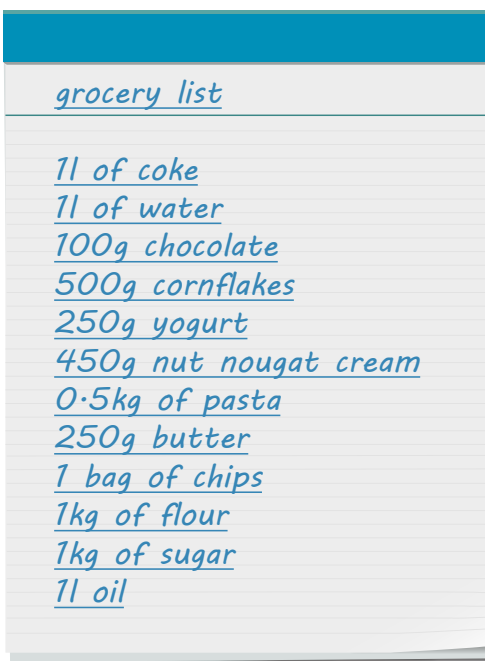
Name brand product	Price
Total:	



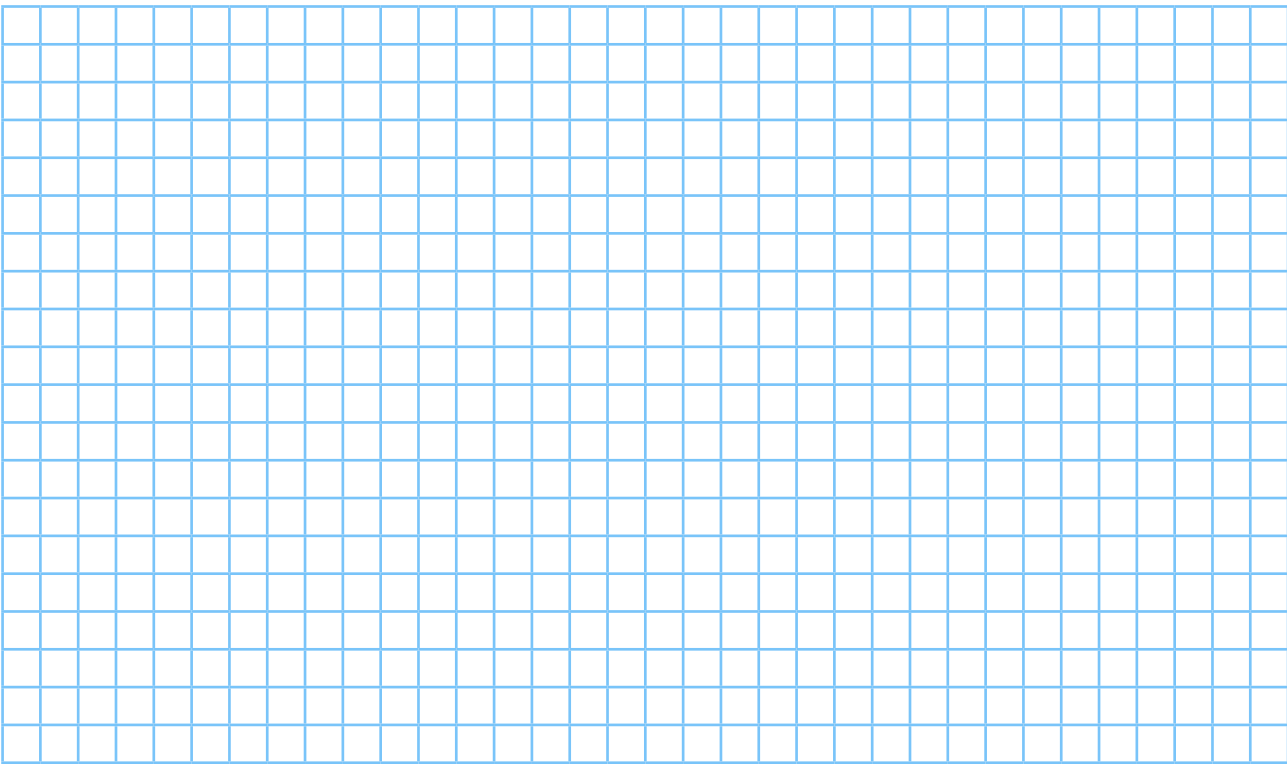
Generic product	Price
Total:	

**Exercise 11**

- a) Complete the table with the corresponding prices from the advertising brochures you have brought with you (or research on the Internet).
- b) Calculate the price difference between the two columns. Use subtraction when comparing the two lists.
- c) What percentage can you save with the no-name products?



Branded product	Generic product	Price difference (€)	Price difference (%)





### Exercise 12

What modes of transport are in the photos? Add the correct terms.



### Exercise 13

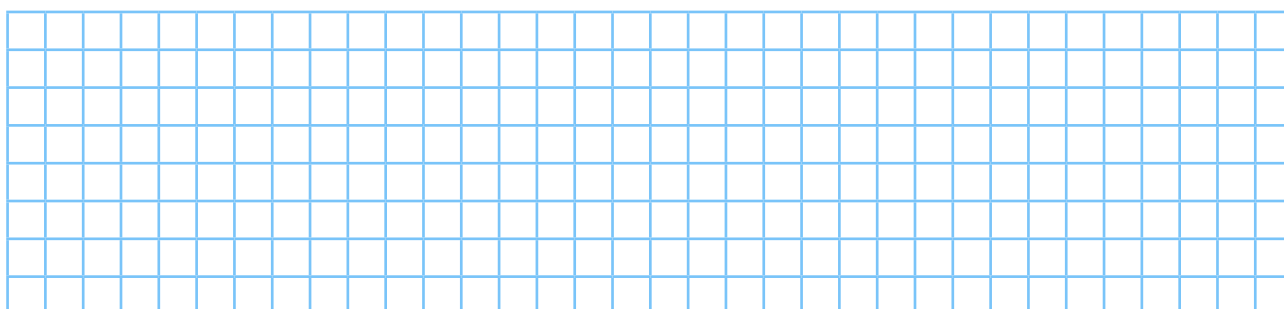
Complete the sentences with comparative and superlative adjectives.



- 1) Supermarket A is \_\_\_\_\_ as supermarket B..
- 2) Supermarket D is \_\_\_\_\_ away.
- 3) Supermarket B is \_\_\_\_\_ as supermarket A.
- 4) Supermarket A is \_\_\_\_\_.
- 5) Supermarket D is \_\_\_\_\_ as supermarket C.

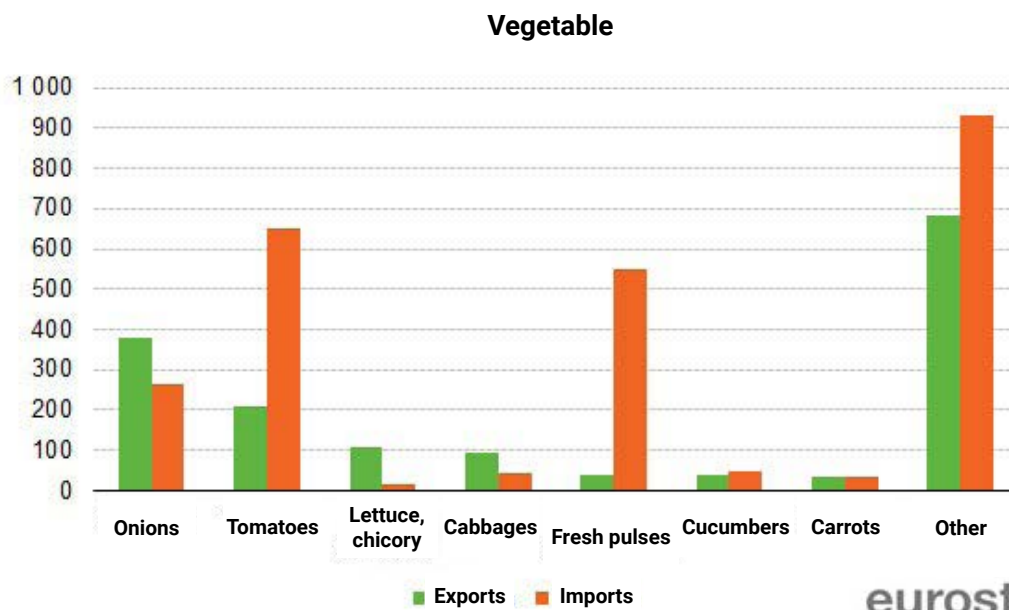
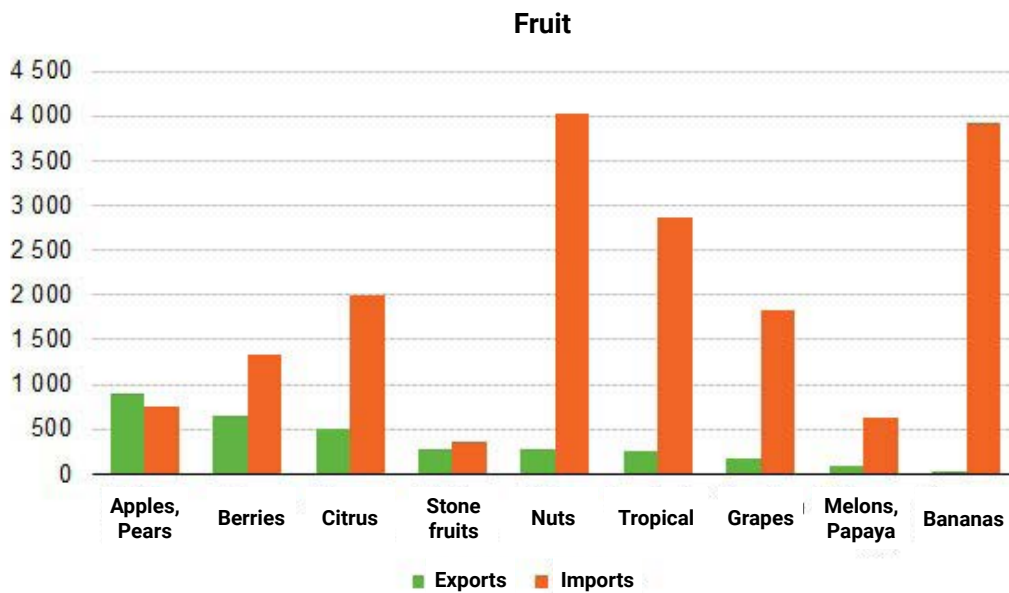
### Exercise 14

Story problem. Find out the how much gas your car needs. The litre prices is 1.30 Euro. Your car needs 6.7 Litres per 100 kilometrers. The distance of the super market from zour house is 11 km. How much gas does your car need to get to and from the super market?



**Exercise 15**

Look at the following chart. Read the statements and decide which are correct.



- 1) The majority of bananas found in Europe are imported.
- 2) More citrus fruits than berries are exported.
- 3) Carrots are equally imported as they are exported.
- 4) The most common fruits which are exported are both apples and pears.
- 5) The most common exported vegetable is tomatoes.

**Exercise 16**

Complete the blanks.

Why you should buy and eat local food

There are many good 1.\_\_\_\_\_ to choose local foods e.g. good for you, your community and your local environment.

You are supporting local farmers and producers since most local food 2.\_\_\_\_\_ are small or 'micro' businesses (less than 10 staff). You help their businesses to grow and bring new products to market.

You get to enjoy great quality and taste since the food has less to travel so can be delivered and sold soon after it is picked. Producers also can select varieties for flavour rather than those that 3.\_\_\_\_\_ well or have a long shelf life.

You are supporting your local economy local food can support hundreds of jobs. This means the money you spend automatically 4.\_\_\_\_\_ again locally.

You cut the distance your food has to travel. If you don't buy local food, the food you buy may have been 5.\_\_\_\_\_, as well as being trucked up. A quarter of all lorries on the road carry food. Air-freighting of fruit and vegetables is a major contributor to greenhouse 6.\_\_\_\_\_ from our food supply system.

You get good value for your money

Local food may not always be the cheapest food available but it is high quality, because of the freshness, taste and quality of ingredients. Ultra-processed foods often use cheaper ingredients to bulk out the product, making them appear cheap but feeding you less well.

You'll find it easier to eat 7.\_\_\_\_\_. Fruit and veg in season will usually be field grown, which minimises their energy demand and carbon footprint. It's much easier to buy locally to buy seasonal than check seasonality charts.

You can cut down on wasted packaging because food now travels so far, it is packaged to protect it. Local food sold through markets, traditional shop and farm shops is often unpackaged or sold in simple bags.

You can build new 8.\_\_\_\_\_ with your community it is one way to get to understand where your food comes from, the people who produce it and also to know your area better.

<i>travel</i>	<i>producers</i>	<i>circulates</i>	<i>air-freighted</i>
<i>connections</i>	<i>reasons</i>	<i>pollution</i>	<i>seasonally</i>

**Exercise 17**

Read the statements and decide which are correct.

- 1) All fruits and vegetables, which I find at the supermarket, are local.
- 2) I am most likely to find local fresh produce at a farmer's market.
- 3) All fruits and vegetables sold at the store come from European farms.
- 4) The stores always put up signs as to where the produce comes from.
- 5) I will find information about the origin of the produce on the packaging.

**Exercise 18**

Look at the following chart and answer the questions.

- 1) What fruit could you eat in winter?

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- 2) Which vegetables can be stored the longest?

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- 3) Which fruit can be stored the longest?

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- 4) Which vegetable is in season the shortest?

---

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- 5) Which vegetable is in season the longest?

---

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- 6) Which fruit is in season the shortest?

---

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# VEGETABLES BY MONTH

Use this 'Vegetables by Month' chart to make sure you're buying and cooking vegetables during their seasonal peaks. Note: Based on a US seasonality.

- JAN
- FEB
- MAR
- APR
- MAY
- JUN
- JULY
- AUG
- SEP
- OCT
- NOV
- DEC





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