

## Appendix

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### Spelling and Pronunciation

When the English tongue we speak  
 Why is **break** not rhymed with **weak**?  
 Won't you tell me why it's true  
 We say **sew**, but also **few**?  
 And the maker of a verse  
 Cannot rhyme his **horse** with **worse**?  
**Beard** is not the same as **heard**,  
**Cord** is different from **word**,  
**Cow** is cow, but **low** is low,  
**Shoe** is never rhymed with **foe**.  
 Think of **hose** and **dose** and **lose**,  
 And think of **goose** and yet of **choose**,  
 Think of **comb** and **tomb** and **bomb**,  
**Doll** and **roll** and **home** and **some**.  
 And since **pay** is rhymed with **say**,  
 Why not **paid** with **said** I pray?  
 Think of **blood** and **food** and **good**;  
**Mould** is not pronounced like **could**.  
 Why is it **done**, but **gone** and **lone** –  
 Is there any reason known?  
 To sum it up, it seems to me  
 That sounds and letters don't agree.

*Find at least one example for each sound in the poem from the words in italics.*

/eɪ/ make .....

/i:/ read .....

/əʊ /boat .....

/u:/ pool .....

/ɔ:/ born .....

/ɜ:/ bird .....

/ɪə/ gear .....

/ɑʊ/ house .....

/ɒ/ shot .....

/ʌ/cut .....

/e/ egg .....

/ʊ/ put .....

### Phonetic alphabet

θ	Λ	ŋ	ɑ:
ɜ:	tʃ	ɔ:	æ
ʊ	ʃ	ʒ	ð
ə	ɪ	dʒ	əʊ
aɪ	ɔɪ	e	u:
i:	ɒ	eɪ	aʊ
ɪə	eə	ʊə	z

**Partner dictation – student A**

1. Can you tell me \_\_\_\_\_ have in common?
2. \_\_\_\_\_ of the so-called technical English?
3. \_\_\_\_\_ you must acquire a thorough knowledge \_\_\_\_\_ grammar and rules of word formation.
4. \_\_\_\_\_ has its separate vocabulary.
5. \_\_\_\_\_, the semi-technical words \_\_\_\_\_ the most difficulties.
6. \_\_\_\_\_ are frequently used. \_\_\_\_\_ from everyday English, \_\_\_\_\_ is totally different.
7. \_\_\_\_\_ when new discoveries were made.
8. More than half of all the technical vocabulary \_\_\_\_\_
9. \_\_\_\_\_ and therefore easy to understand. \_\_\_\_\_ to pronounce them correctly in English.
10. Passive constructions \_\_\_\_\_, e.g. in operating instructions.

**Partner dictation – student B**

1. \_\_\_\_\_ what everyday English and technical English \_\_\_\_\_?
2. Which are the peculiarities \_\_\_\_\_?
3. In order to master technical English \_\_\_\_\_ of everyday English with its vocabulary, \_\_\_\_\_.
4. Each branch of technology \_\_\_\_\_.
5. As far as vocabulary is concerned, \_\_\_\_\_ are likely to cause \_\_\_\_\_.
6. Semi-technical words \_\_\_\_\_.  
They have been borrowed \_\_\_\_\_, but mostly their meaning \_\_\_\_\_.
7. Many technical terms were invented \_\_\_\_\_.
8. \_\_\_\_\_ is of Greek or Latin origin.
9. They are international \_\_\_\_\_.  
The problem however is \_\_\_\_\_.
10. \_\_\_\_\_ are used with great frequency \_\_\_\_\_.

Complete the text with suitable words from the box.

acquire • certain • common - considerable • familiar • frequency - impersonal • impersonal - matter  
• matters • peculiarities • purposes - seem • seem • sight • towards • vocabulary - vocabulary

Technical English is often said to be difficult to understand. There is a \_\_\_\_\_<sup>1)</sup> tendency for it to be regarded as some sort of language of its own. At first \_\_\_\_\_<sup>2)</sup> this may \_\_\_\_\_<sup>3)</sup> true as far as \_\_\_\_\_<sup>4)</sup> is concerned. • But this is not the problem that really \_\_\_\_\_<sup>5)</sup>. There are many reasons why technical texts \_\_\_\_\_<sup>6)</sup> to be rather difficult.

The English used for technical \_\_\_\_\_<sup>7)</sup> is not so very different from the everyday phrases and sentences. The \_\_\_\_\_<sup>8)</sup> patterns of everyday English are the basis of all technical writing, although there is a difference in the \_\_\_\_\_<sup>9)</sup> with which \_\_\_\_\_<sup>10)</sup> grammatical items occur.

In order to master technical English you must first \_\_\_\_\_<sup>11)</sup> a thorough knowledge of everyday English with its grammar, \_\_\_\_\_<sup>12)</sup> and rules of word formation. Then it will be easy for you to learn the \_\_\_\_\_<sup>13)</sup> of technical English.

Scientific and technical writing is usually about things, \_\_\_\_\_<sup>14)</sup>, natural processes, and is \_\_\_\_\_<sup>15)</sup> in style. This \_\_\_\_\_<sup>16)</sup> attitude of the scientist or engineer \_\_\_\_\_<sup>17)</sup> his subject has a \_\_\_\_\_<sup>18)</sup> influence on the language he uses in writing and to some extent, in speaking.

17 words are hidden (vertically, horizontally and diagonally). Can you find them?

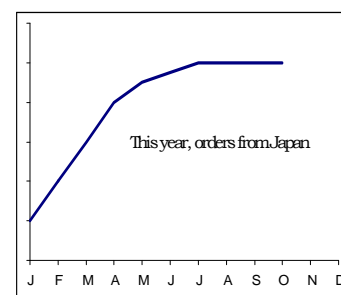
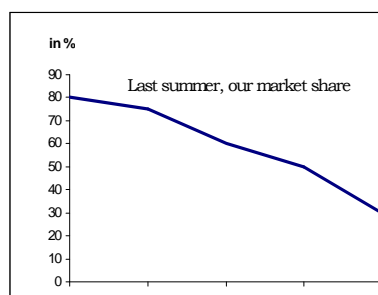
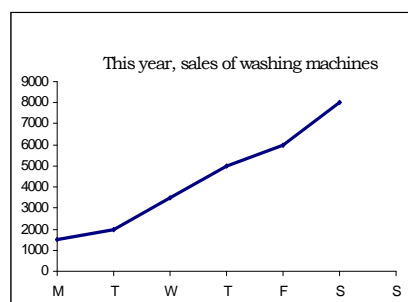
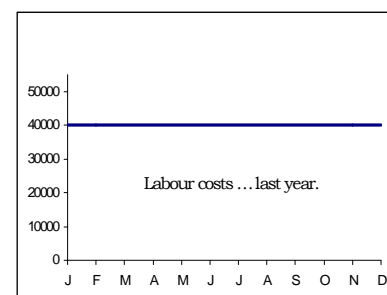
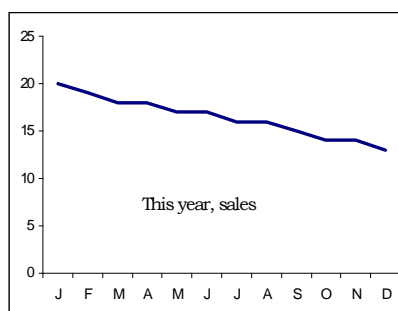
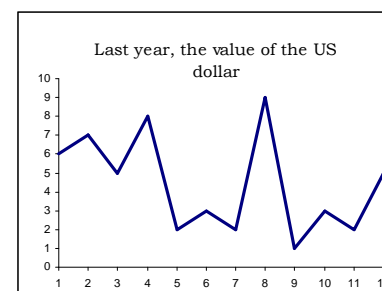
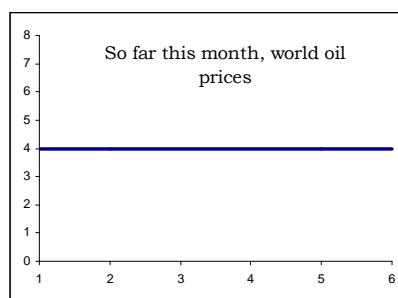
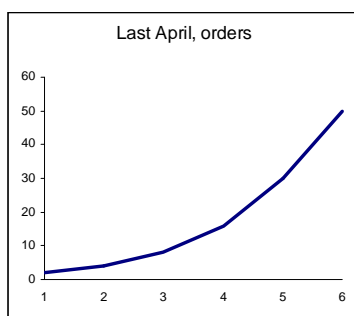
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3	E	S	T	E	C	H	N	O	L	O	G	Y	L	I	P
4	G	N	C	X	S	E	M	I	N	A	R	M	G	E	L
5	T	E	G	I	S	D	I	I	N	J	Q	N	E	M	Y
6	U	L	X	L	E	B	S	E	P	U	B	G	N	C	G
7	N	F	N	A	I	N	C	E	O	Z	O	B	G	O	P
8	I	X	E	Y	M	S	C	I	M	O	D	J	I	M	H
9	V	E	A	C	E	I	H	E	H	S	P	B	N	P	Y
10	E	D	G	C	B	W	N	C	L	J	X	H	E	U	S
11	R	M	A	T	H	E	M	A	T	I	C	S	E	T	I
12	S	E	I	F	H	J	M	K	T	Z	F	G	R	E	C
13	I	N	D	Z	R	Y	K	I	M	I	R	V	I	R	S
14	T	K	J	F	U	N	Y	P	E	Q	O	R	N	J	Q
15	Y	K	R	S	T	U	D	E	N	T	P	N	G	N	D

## Describing Trends – past and present perfect

- |                              |                           |
|------------------------------|---------------------------|
| a. went down slightly        | f. fluctuated             |
| b. have gone up considerably | g. increased dramatically |
| c. have levelled off         | h. remained steady        |
| d. rose slightly             | i. have remained constant |
| e. fell quite sharply        |                           |

Use the phrases to complete the descriptions with them.

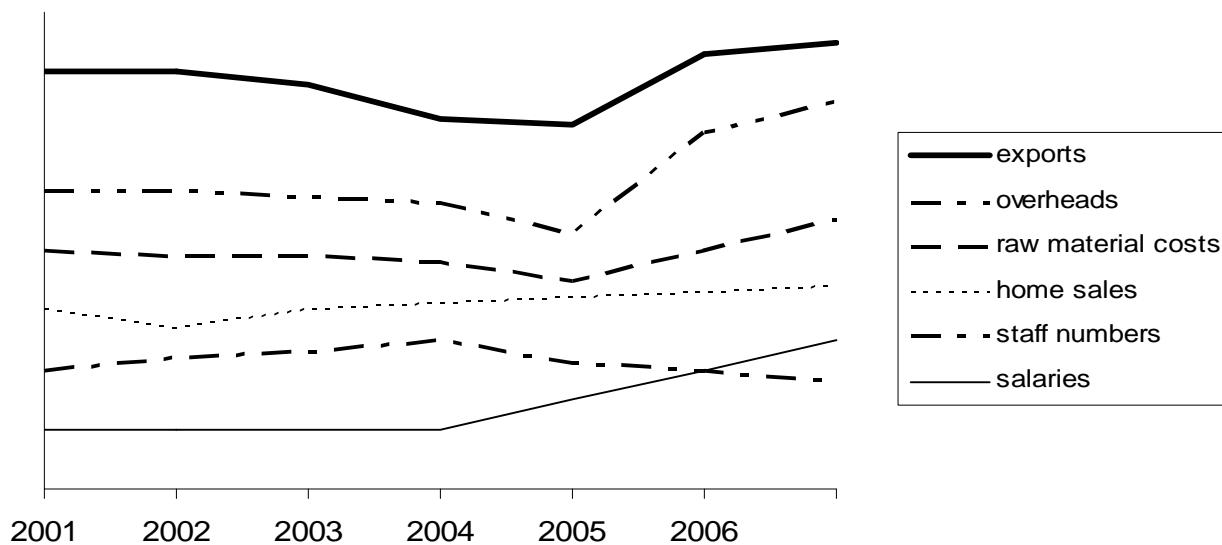
- |   |  |
|---|--|
| 1. Last April, orders...                    | 6. Labour costs ... last year.             |
| 2. So far this month, world oil prices...   | 7. This week, sales of washing machines... |
| 3. Last year, the value of the US dollar... | 8. Last summer, our market share...        |
| 4. Yesterday, our share price...            | 9. This year, orders from Japan...         |
| 5. This year, sales...                      |  |



## past and present perfect

We usually use the **past simple** to describe completed events or actions in the past: *Prices went up in 2005. Salary costs increased between 2004 and 2006.*

If there is also a present time reference which relates the present to a past event then we use the **present perfect**: *Prices have increased steadily over the past 4 years.* To emphasise the process over the whole period we use the **present perfect progressive**: *Prices have been increasing steadily over the past 4 years.*



Use the information shown to complete the following sentences using an appropriate form of the verb given. There may be more than one possible answer in some cases.

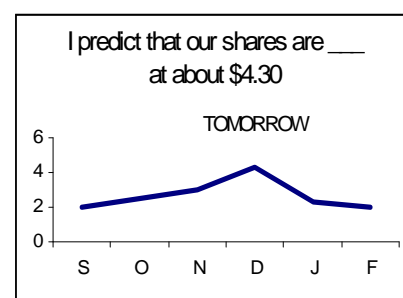
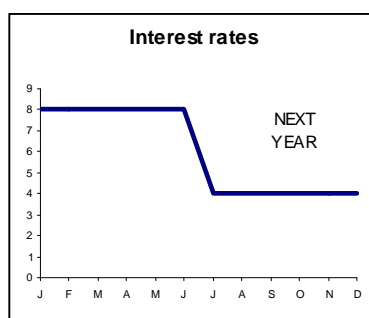
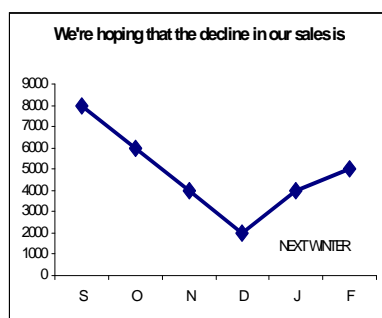
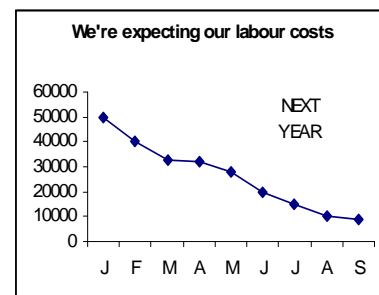
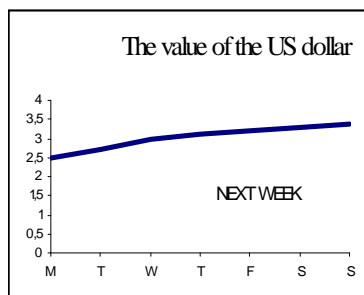
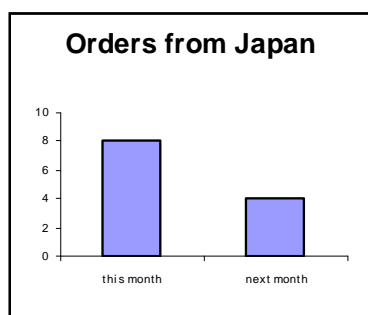
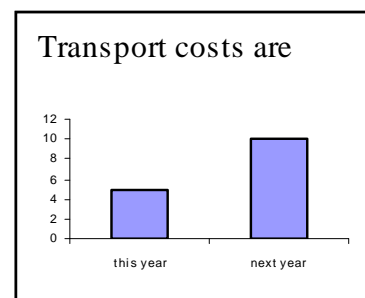
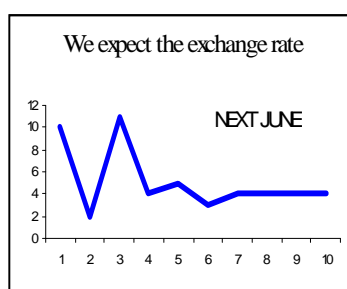
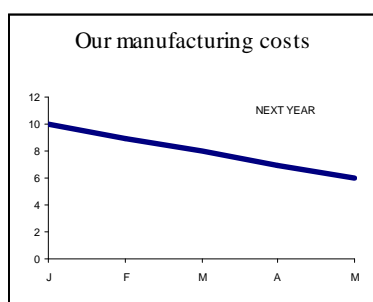
1. Exports \_\_\_\_\_ significantly between 2001 and 2005. (fall)
2. Since 2005 they \_\_\_\_\_ steadily, however. (rise)
3. Overheads \_\_\_\_\_ sharply since last year. (rise)
4. There \_\_\_\_\_ a gradual fall in the price of raw materials between 2003 and 2005, but the price \_\_\_\_\_ considerably in 2006. (be, rise)
5. Domestic sales \_\_\_\_\_ steadily over the past 4 years. (increase)
6. The workforce \_\_\_\_\_ by 25 % since 2004. (shrink)
7. The workforce \_\_\_\_\_ by 10 % between 2001 and 2002. (grow)
8. Salary costs \_\_\_\_\_ sharply over the last few years. (go up)
9. Overheads \_\_\_\_\_ slightly in 2003. (fall)
10. There \_\_\_\_\_ a slight fall in domestic sales in 2002. (be)

## Describing Trends - forecasting

- |  |  |
|--|--|
| <p>a. is expected to rise slowly</p> <p>b. going to peak</p> <p>c. may fall suddenly</p> <p>d. should fall steadily</p> <p>e. to stabilise</p> | <p>f. going to bottom out</p> <p>g. likely to double</p> <p>h. probably going to halve</p> <p>i. to decrease rapidly</p> |
|--|--|

Use the phrases to complete the descriptions with them.

1. Our manufacturing costs...
2. We expect the exchange rate...
3. Transport costs are...
4. Orders from Japan are...
5. The value of the US dollar...
6. We're expecting our labour costs...
7. We're hoping that the decline in our sales is...
8. Interest rates...
9. I predict that our shares are... at about \$4.30.



## Rough Figures – room for manoeuvre

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Complete the following expressions with one of these words. Use each expression once.

**around**  
**less**  
**between**

**roughly**  
**towards**  
**region**

**give or take**  
**not more than**

- a. somewhere in the \_\_\_\_\_ of 200 to 250
- b. somewhere \_\_\_\_\_ ten and twelve thousand
- c. sometime \_\_\_\_\_ the middle of September
- d. about \$5,000, \_\_\_\_\_ a couple of hundred either way
- e. \_\_\_\_\_ 7%, perhaps a bit more
- f. not \_\_\_\_\_ than \$10,000
- g. \_\_\_\_\_ the end of the year
- h. \_\_\_\_\_ five or six

Use each of the expressions to complete one of these:

1. What sort of return can we expect?  
\_\_\_\_\_, but I doubt it.
2. How many more weeks before you can say for certain – nine, ten?  
No, no \_\_\_\_\_ at the most. I doubt if it will take as long as that.
3. When do you think everything will be in place?  
\_\_\_\_\_ but don't hold me to that; all sorts of things could go wrong.
4. Do you think \$5,000 will cover it?  
Certainly not. We're looking at \_\_\_\_\_, maybe even a bit more than that.
5. How much will a new one cost?  
\_\_\_\_\_. Different models don't vary by much these days.
6. What sort of salary do you think we can offer?  
\_\_\_\_\_. You can't really offer less than 10K these days.
7. Can you give me a ballpark figure for the number of units you might need?  
\_\_\_\_\_ maybe more. it's difficult to say until we have more details.
8. When will it be ready?  
\_\_\_\_\_, I hope – mid-January at the latest.

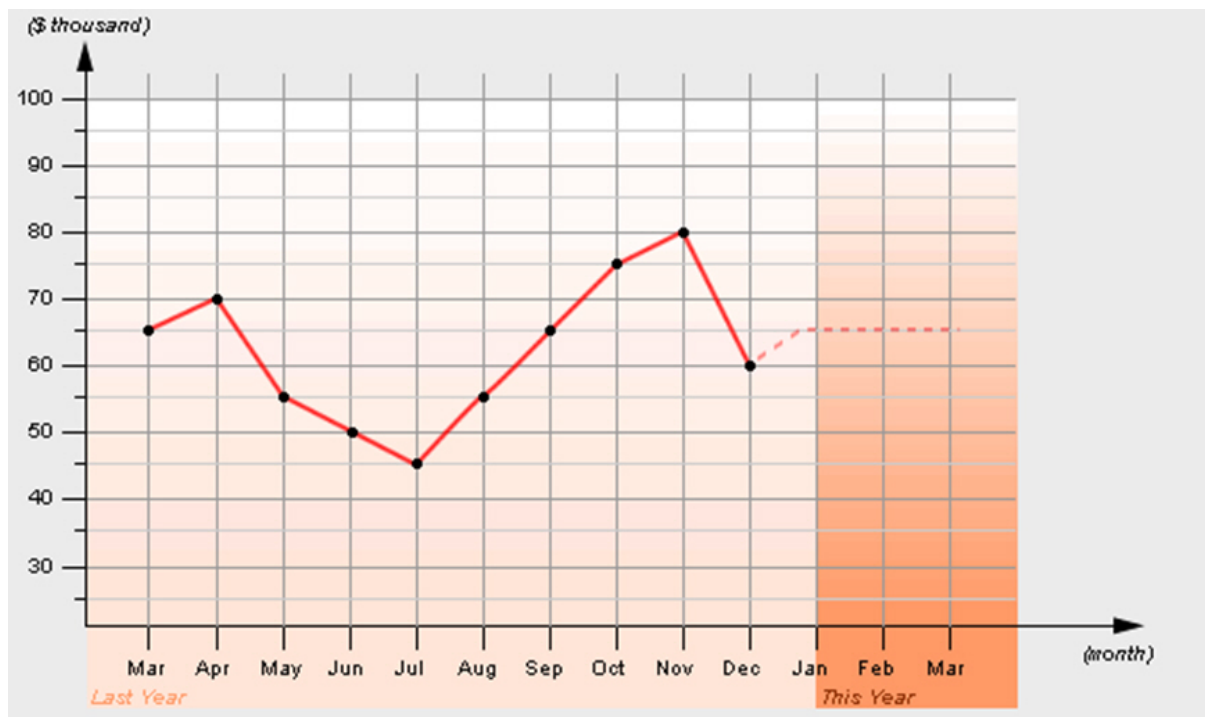


## Sales trends – pair work

student A

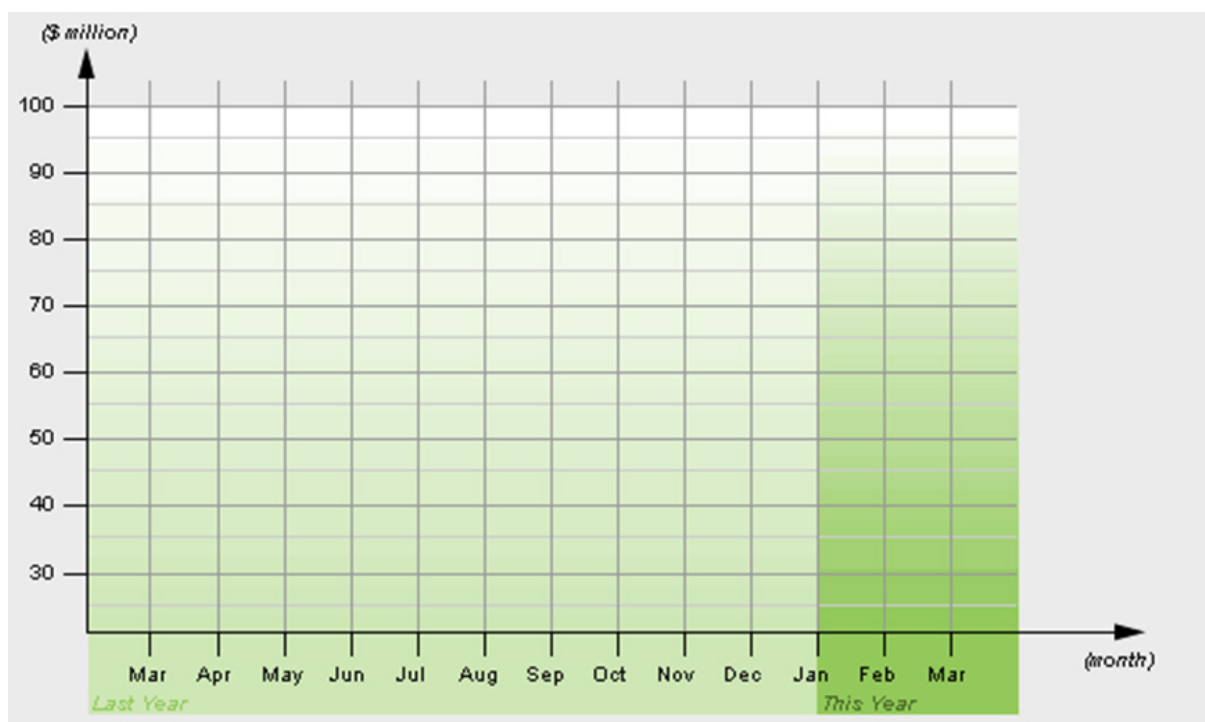
**Part 1:** Describe this graph to your partner.

*Sales at Yoghurt Delights, Inc*



**Part 2:** Listen to your partner and draw a graph based on his/her description.

*Sales at MyOffice Ltd.*

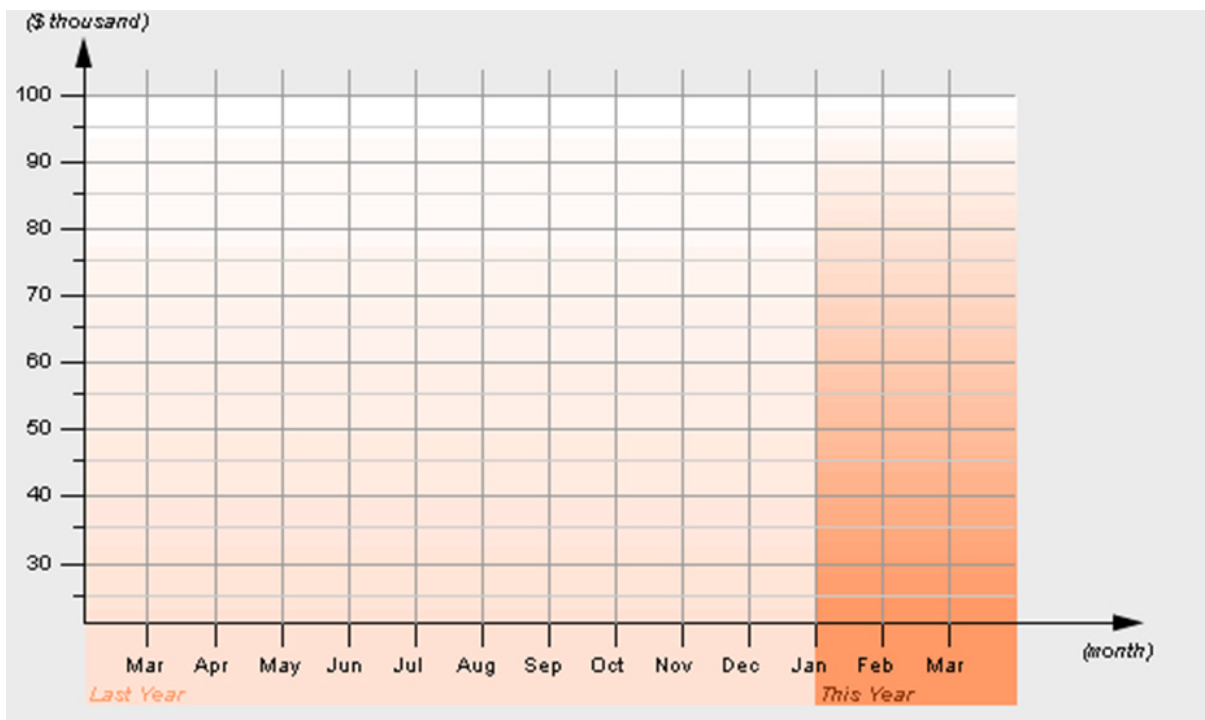


Sales trends – pair work

student B

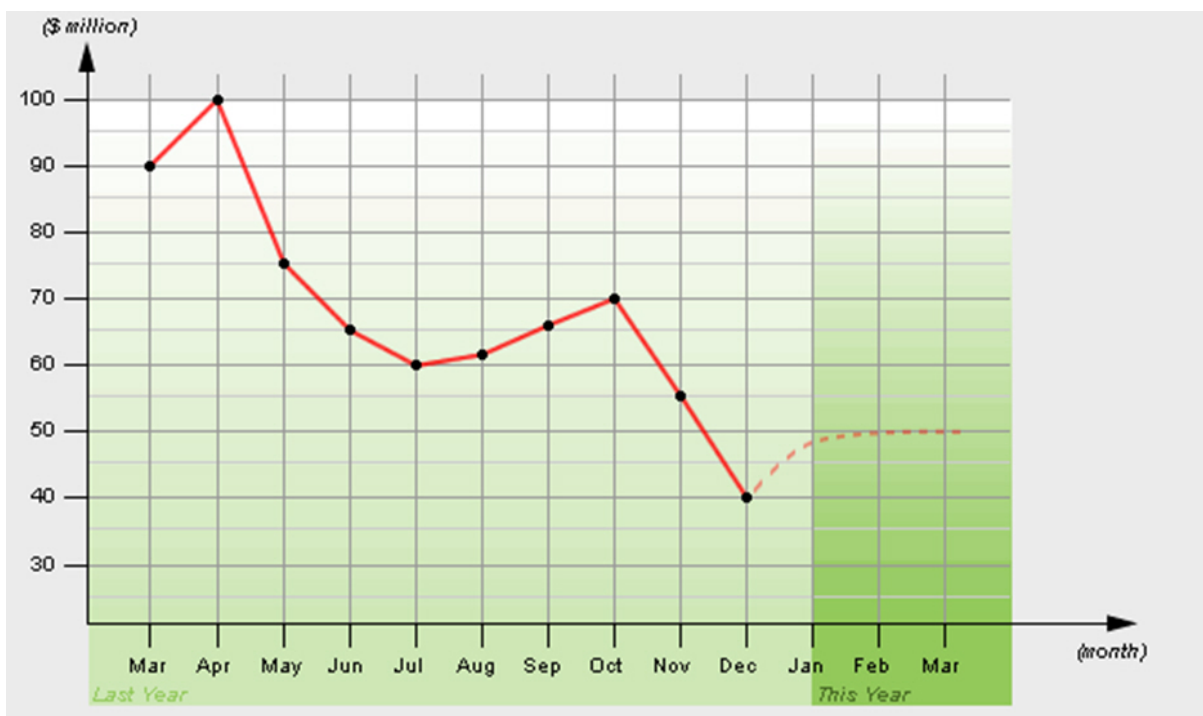
**Part 1:** Listen to your partner and draw a graph based on his/her description.

*Sales at Yoghurt Delights, Inc*



**Part 2:** Describe this graph to your partner.

*Sales at MyOffice Ltd.*



### Can you unscramble the words?

In mathematics, a complex \_\_\_\_\_ (bernmu)<sup>1</sup> is a number of the form  $a + bi$  where  $a$  and  $b$  are \_\_\_\_\_ (rale)<sup>2</sup> numbers, and  $i$  is the imaginary \_\_\_\_\_ (tiun)<sup>3</sup>, with the property  $i^2 = -1$ . The real number  $a$  is \_\_\_\_\_ (lealcd)<sup>4</sup> the real part of the \_\_\_\_\_ (xploemc)<sup>5</sup> number, and the real number  $b$  is the \_\_\_\_\_ (igyiaanrm)<sup>6</sup> part. When the imaginary part  $b$  is 0, the complex number is \_\_\_\_\_ (stuj)<sup>7</sup> the real number  $a$ .

For example,  $3 + 2i$  is a complex number, with \_\_\_\_\_ (ealr)<sup>8</sup> part 3 and imaginary part 2. If  $z = a + bi$ , the \_\_\_\_\_ (arel)<sup>9</sup> part ( $a$ ) is denoted  $\text{Re}(z)$ , and the imaginary part ( $b$ ) is denoted  $\text{Im}(z)$ .

Complex numbers can be added, \_\_\_\_\_ (asceutbrtd)<sup>10</sup>, multiplied, and \_\_\_\_\_ (iidedv)<sup>11</sup> like real numbers, but they have \_\_\_\_\_ (iaaoldtin)<sup>12</sup> elegant properties. For example, real numbers alone do not \_\_\_\_\_ (vpeiord)<sup>13</sup> a solution for every polynomial algebraic \_\_\_\_\_ (tinqaoeu)<sup>14</sup> with real coefficients, while complex numbers do (the fundamental theorem of algebra).

In some fields (in particular, electrical \_\_\_\_\_ (egnineiren)<sup>15</sup>, where  $i$  is a symbol for current), the imaginary unit  $i$  is instead written as  $j$ . It follows that \_\_\_\_\_ (pixoecm)<sup>16</sup> numbers are written as  $a + bj$ .

### Types of Computer Systems

*Listen and complete the notes.*

**Mainframe:** deals with lots of \_\_\_\_\_  
supports \_\_\_\_\_  
can be found in \_\_\_\_\_

**Desktop PC:** contains \_\_\_\_\_  
used as \_\_\_\_\_

**Laptop:** \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
similar to a desktop PC's  
can be \_\_\_\_\_ easily, has a smaller \_\_\_\_\_  
is used as an input device  
has \_\_\_\_\_ for use when there is no mains supply available

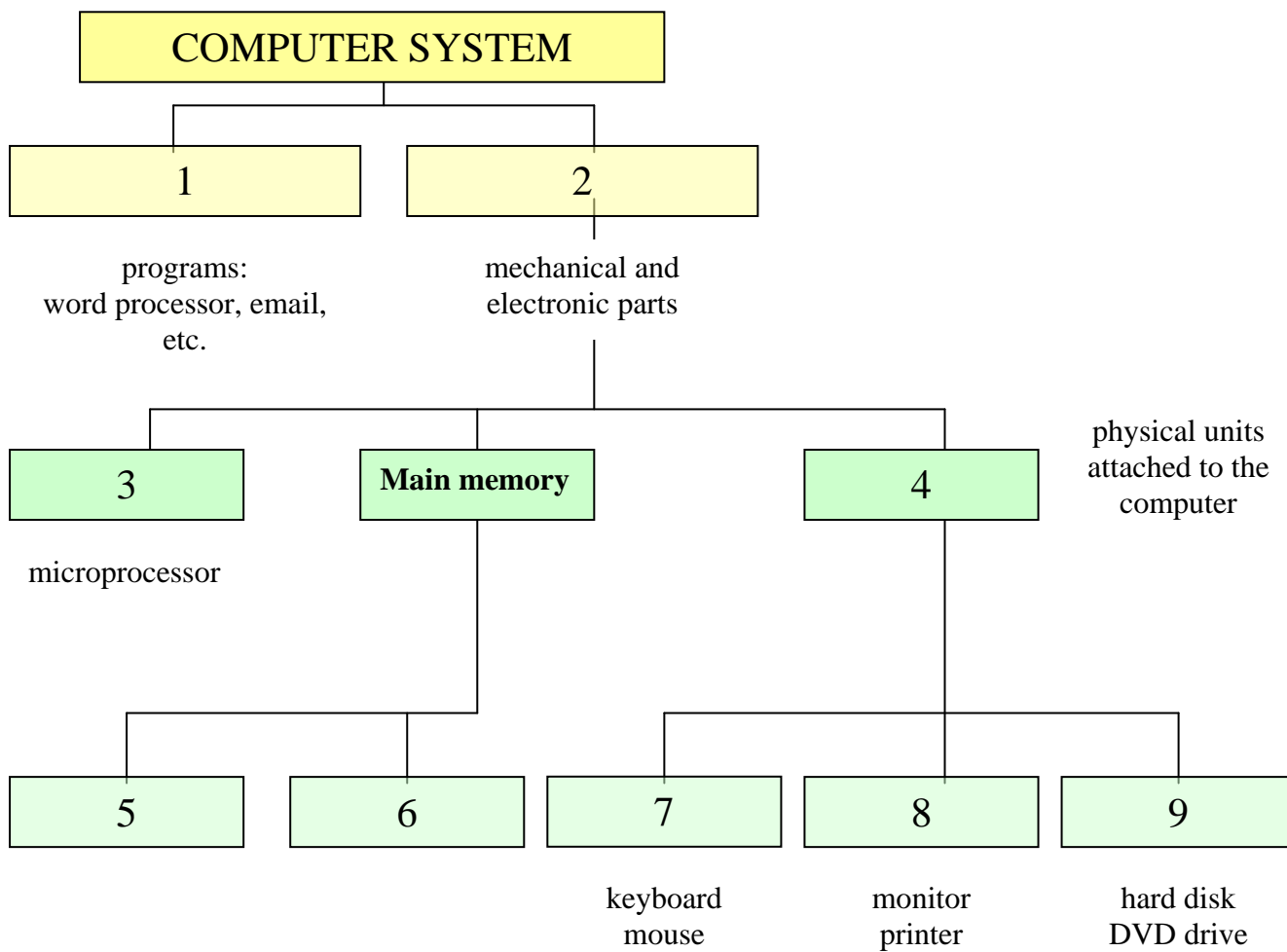
**Tablet PC:** looks like a book  
special digital pen used for \_\_\_\_\_  
\_\_\_\_\_ handwriting and \_\_\_\_\_ it into  
editable text  
keyboard and \_\_\_\_\_ also available  
mobile device

**PDA:** term used for a variety of \_\_\_\_\_, such as palmtops and  
pocket PCs  
input devices: \_\_\_\_\_ or \_\_\_\_\_  
some models have \_\_\_\_\_ and \_\_\_\_\_  
possible uses:

**Wearable computer:** uses \_\_\_\_\_ as power source  
\_\_\_\_\_ on the user's body: designed for mobile or hands-free  
\_\_\_\_\_ may contain a \_\_\_\_\_ modern, small keyboard and screen or  
are voice-activated and can \_\_\_\_\_ email or voicemail

## Parts of a computer

Label the diagram with the correct terms.



## The great e-waste recycling debate

Complete the text with words/ phrases. you hear.



The high tech boom has brought with it a new type of waste - electronic waste, a \_\_\_\_\_ (1) of refuse that barely existed 20 years ago. Now e-waste represents the biggest and fastest growing manufacturing waste problem. The black and white TVs have given way to colour sets, the basic mobile phones now need to come \_\_\_\_\_ (2) with a camera, personal organizer and music, and who wants last year's computer when it can't handle the latest software? As we continually \_\_\_\_\_ (3) and \_\_\_\_\_ (4) new products, the lifespan of the old ones is becoming more and more short-lived all the time. As in the case of ship breaking, e-waste recycling involves the major producers and users shipping the obsolete products to Asia, Eastern Europe, and Africa. Instead of being \_\_\_\_\_ - \_\_\_\_\_ (5) we are exporting waste containers full of problems to people who have to choose between poverty or poison.

### A STORY OF E-WASTE - THE COMPUTER

On \_\_\_\_\_ (6) a computer is made of 23% plastic, 32% ferrous metals, 18% non-ferrous metals (lead, cadmium, antimony, beryllium, chromium and mercury), 12% electronic boards (gold, palladium, silver and platinum) and 15% glass. Only about 50% of the computer is recycled, the rest is \_\_\_\_\_ (7). The toxicity of the waste is due, by and large, to the lead, mercury and cadmium - nonrecyclable components of a single computer may contain almost 2 kilograms of lead. Much of the plastic used contains \_\_\_\_\_ (8) retardants, which makes it difficult to recycle.

How is a computer recycled? In a number of countries entire communities, including the children, earn their livelihoods by scavenging metals, glass and plastic from old computers. To extract the small quantity of gold, \_\_\_\_\_ (9) are melted down over a charcoal fire. The plastic on the electrical cords is burnt in barrels to expose the copper wires. All in all each computer yields about US \$6 worth of material (Basel Action Network). Not very much when you consider that burning the plastic \_\_\_\_\_ (10) dioxin and other toxic gases into the air. Large volumes of worthless parts are also dumped nearby, allowing the remaining heavy metals to contaminate the area.

### LET ME GIVE YOU A COMPUTER

Communities in West Africa receive used computers from donors in developed countries. What was intended as a useful gift, however, quickly becomes a \_\_\_\_\_ \_\_\_\_\_ (11). When things go wrong, as they often do with old computers, they end up on the scrap heap due to the lack of technical support. It is estimated that there are over a \_\_\_\_\_ (12) personal computers in the world at present. In developed countries these have an average lifespan of only 2 years. In the United States alone there are over 300 million obsolete computers. (US National Safety Council). The Basel Convention has before it an amendment pending which would ban the export of \_\_\_\_\_ (13) waste for disposal to developing countries. Some countries, among them those of the European Union, have already implemented this proposed amendment. In addition, countries like China have banned the importation of e-waste, although significant volumes are still entering the country \_\_\_\_\_ (14).

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Find synonyms for the following words in the text above.

waste

poison

melted down

extract

used/ old computers

dumped

entering the country



342  
- 173  
?

"New Math"  
by Tom Lehrer

Fill in the missing words.

You can't take three from two,  
Two is \_\_\_\_\_<sup>1)</sup> than three,  
So you look at the four in the tens place.  
Now that's really four tens  
So you make it three tens,  
\_\_\_\_\_<sup>2)</sup>, and you \_\_\_\_\_<sup>3)</sup>  
a ten to ten ones,  
And you \_\_\_\_\_<sup>4)</sup> 'em to the two  
and get twelve,  
And you take away three, that's nine.  
Is that clear?

Now instead of four in the tens place  
You've got three,  
'Cause you added one,  
That is to say, ten, to the two,  
But you can't take seven from three,  
So you look in the hundreds place.

From the three you then use one  
to make ten ones...  
(And you know why four plus  
\_\_\_\_\_<sup>5)</sup> one  
plus ten is fourteen \_\_\_\_\_<sup>6)</sup> one?  
Cause addition is commutative, right!)

And so you've got thirteen tens  
And you take away seven,  
And that \_\_\_\_\_<sup>7)</sup> five...

Well, six \_\_\_\_\_<sup>8)</sup> ...  
But the idea is the important thing!

Now go back to the hundreds place,  
you're left with two,  
And you take away one from two,  
And that \_\_\_\_\_<sup>9)</sup> ...?

Everybody get one?  
Not bad for the first day!

Hooray for New Math,  
New-hoo-hoo Math,  
It won't do you a bit of good to review math.  
It's so simple,  
So very simple,  
That only a child can do it!

Now, that \_\_\_\_\_<sup>10)</sup> is not  
the answer that I had in mind,  
because the book that I got this problem out of  
wants you to  
do it in it in \_\_\_\_\_<sup>11)</sup> eight.  
But don't panic!

Base eight is just like \_\_\_\_\_<sup>12)</sup>  
ten really –  
if you're missing two fingers!  
Shall we have a go at it? Hang on...  
You can't take three from two,  
Two is \_\_\_\_\_<sup>13)</sup> than three,  
So you look at the four in the eights place.  
Now that's really four eights,  
So you make it three eights,  
\_\_\_\_\_<sup>14)</sup>, and you  
\_\_\_\_\_<sup>15)</sup> an eight to eight ones  
And you \_\_\_\_\_<sup>16)</sup> 'em to the two,  
And you get one-two \_\_\_\_\_<sup>17)</sup> eight,  
Which is ten \_\_\_\_\_<sup>18)</sup> ten,  
And you take away three, that's seven.  
OK?

Now instead of four in the eights place  
You've got three,  
'Cause you added one,  
That is to say, eight, to the two,  
But you can't take seven from three,  
So you look at the sixty-fours...  
"Sixty-four?  
How did sixty-four get into it?"  
I hear you cry! Well, sixty-four is eight  
squared, don't you see?  
"Well, ya ask a silly question,  
ya get a silly answer!"

From the three, you then use one  
To make eight ones,  
You \_\_\_\_\_<sup>19)</sup> those ones to the three,  
And you get one-three \_\_\_\_\_<sup>20)</sup> eight,  
Or, in other words,  
In \_\_\_\_\_<sup>21)</sup> ten you have eleven,  
And you take away seven,  
And seven from eleven is four!  
Now go back to the sixty-fours,  
You're left with two,  
And you take away one from two,  
And that \_\_\_\_\_<sup>22)</sup> ...?

Now, let's not always see the same hands!  
One, that's right.  
Whoever got one can stay after the show  
and clean the erasers.

Hooray for New Math,  
New-hoo-hoo Math!  
It won't do you a bit of good  
to review math.  
It's so simple,  
So very simple,  
That only a child can do it!

**X-word: Printer**

Fill in the x-word by asking your neighbour questions like this: *What is F1 across?* or *What is A1 down?*

Cover one of the two grids and answer your neighbour's questions by giving explanations - NOT USING THE WORD ITSELF.

student A:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	P	A	G	E	A									D	P	I	L		I	
2													P						N	
3													D						K	
4												L							-	
5																			J	
6						S	U	I	T	A	B	L	E		I				E	
7			L																T	
8			E																	
9	H		T																I	
10	O		T																M	
11	T		E												C				A	
12	-		R												A				G	
13	R														M				E	
14	O			R	E	S	O	L	U	T	I	O	N		E				S	
15	L		B												R				E	
16	L		E			P	R	I	N	T	I	N	G		A				T	
17	E		A																T	
18	R		M																E	
19																			R	
20			C	A	R	T	R	I	D	G	E		C							

student B:

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
1	P					A	T	T	R	A	C	T			P			L		I	
2	R														L			A			
3	I		M	E	M	O	R	Y	-	C	A	R	D		O			S			
4	N														T			E			
5	T									F	F				T			R			
6	E				B					I	A				E		I				
7	R				U				X	X					R		N				
8					B												K				
9	H				B		S	C	A	N	N	E	R				-		I		
10					L												R				
11			E	L	E	C	T	R	O	S	T	A	T	I	C		I				
12					-												B				
13					J												B				
14					E												O				
15					T												N				
16																					
17																		D	O	T	
18			M	U	L	T	I	-	F	U	N	C	T	I	O	N					
19																					
20			C												C	H	A	R	G	E	





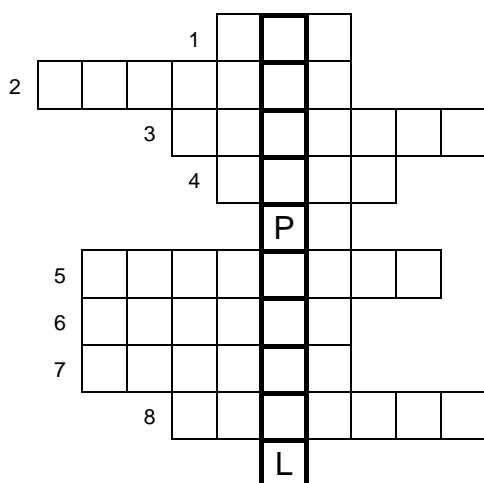
## ACTIVE VS PASSIVE



	Active			Passive: * be“ + -ed (past partic.)		
	S	P	O	S	P	O
Infinitive	They	(build)	the road.	The road	(be built)	(by them).
Present	build			is built		
Past	built			was built		
Future	will build			will be built		
Present Perfect	have built			has been built		
Past Perfect	had built			had been built		
Future Perfect	will have built			will have been built		
Present Progressive	are building			is being built		
Past Progressive	were building			was being built		
Future Progressive	will be building			will be being built		
Present Perfect Progressive	have been building			has been being built		
Past Perfect Progressive	had been building			had been being built		
Future Perfect Progressive	will have been building			will have been being built		
modals e.g. “must“	must build			must be built		

## Input devices, output devices & storage devices

1. It has various groups of keys: alphanumeric keys, a numeric keypad, function keys, cursor keys and dedicated keys.
2. It reads codes consisting of a series of black and white stripes used to give products a unique identification number.
3. It stores photos as digital data on a tiny storage device known as a flash memory card.
4. It lets you send and receive live video pictures through the internet. The resolution is expressed in megapixels. Some include a headset with a microphone and earpiece.
5. It uses a laser beam to fix the ink to the paper. A powder called toner is attracted to paper by an electrostatic charge and then fused on by a hot roller.
6. This is a special device which used ink and fine pens held in a carriage to draw detailed designs.
7. LCDs using TFT technology offer better quality and take up less space, so they are replacing CRTs, which can flicker and emit radiation. The viewing area is measured diagonally, e.g. 17". Colour depth refers to the number of colours the device can display.
8. It's usually called C: drive and can hold several gigabytes of data.
9. They are found in cameras, PDAs and music players.
10. You can move the pointer on the screen using this sensitive device.
11. An upright handle used to control a computer game
12. It is a hand-held device that lets you move the cursor and select items on the screen. A scroll wheel lets you move through your documents. It can have a cable or it can be cordless (wireless). You can use the buttons to click, double-click, drag and right-click.
13. It is built like a photocopier and is for use on a desktop; it can capture text, colour images and even small 3D objects. The resolution of a scanner is measured in dpi.
14. It uses a group of pins to create precise dots. A print head containing tiny pins stress an inked ribbon to make letters and graphics. Using this technology it is possible to print multi-part forms such as receipts and graphics. Disadvantages are the noise and a relatively low resolution.
15. This device can store up to 650-700 MB of data.
16. It generates an image by spraying tiny, precise drops of ink onto the paper. A standard device has a three-colour cartridge, plus a black cartridge. There are also multi-function printers which can work as a scanner, a fax, a photocopier as well.
17. This device can store from 4.7 GB to 17 GB of data.
18. You speak into it to record your voice.
19. You put your finger on it to tell the computer what to do.
20. They are connected to the USB port of the computer. They let you save and transfer data easily.



1. This scanner has a resolution of 300x600 ... .
2. A ... lets you copy photos and printed documents into your PC.
3. It has become one of life's most familiar sounds – the beep of the supermarket till whenever a ... is scanned.
4. To scan photographic negatives or slides you will need a .. scanner.
5. A ... scanner is small enough to hold in your hand.
6. If you need to scan 35mm ... you should go for a dedicated 35mm film scanner which concentrates all its dots into a tiny area.
7. Most digital cameras use flash ... cards to store photos.
8. ... scanners have a flat surface and take at least A4-sized documents.

## BIOS – Basic input output system

*Complete the text with these words/ expressions*

booted • executed • hardware • initial code • initialize • management • management • motherboards • unalterable • updated

BIOS stands for basic input output system and is a term which refers specifically to the \_\_\_\_\_ 1) run by a personal computer. Operating between the \_\_\_\_\_ 2) and higher software levels, its primary function is to prepare the PC so that other programs can be \_\_\_\_\_ 3), i.e. loaded and \_\_\_\_\_ 4). It is embedded on a chip that works directly with the \_\_\_\_\_ 5) and peripheral devices of a system and deals with quite elementary operations such as writing individual bytes onto the monitor or a disk.

BIOS routines used to be stored in ROM and were \_\_\_\_\_ 6). Nowadays the BIOS are usually held on EEPROM or flash memory devices which offer the advantage of being "electronically erasable", i.e. they can easily be \_\_\_\_\_ 7) by the user. The downside, however, is that an improperly configured BIOS can cause the system to crash.

To counteract such problems some \_\_\_\_\_ 8) have a backup or so-called Dual BIOS. Most BIOS also have a "boot block" which is a section of the ROM which runs first and cannot be changed. This code checks whether the rest of the BIOS is in order before proceeding further.

Initially BIOS \_\_\_\_\_ 9) most of the input-output tasks but more modern operating systems took over such jobs, leaving the BIOS to simply \_\_\_\_\_ 10) the setup and bootstrap. More recently, though, BIOS has taken on more complicated functions such as power \_\_\_\_\_ 11), hotplug and thermal \_\_\_\_\_ 12). As a result, BIOS code has become more complex and interfacing with the operating systems a matter of high priority.

*Decide if these statements are true or false according to the text.*

1. BIOS is a hardware device.
2. BIOS is the term used for the initial code for all types of computer systems.
3. BIOS performs very basic tasks.
4. The main job of BIOS is to load and execute software programs.
5. The advantage of more recent BIOS is that all the routines can be changed.
6. If you install a BIOS update improperly, it can make the computer unusable.

*Match the words on the left with their equivalents on the right.*

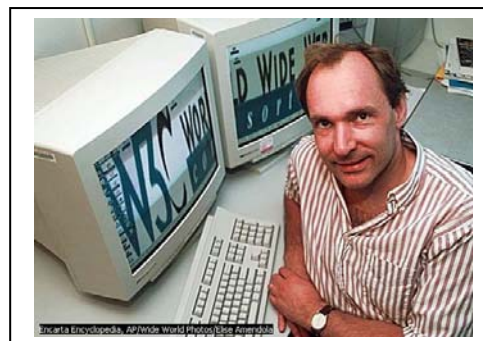
- |                |                   |
|----------------|-------------------|
| 1. inspecting  | a) to pass over   |
| 2. entering    | b) to understand  |
| 3. terminating | c) to examine     |
| 4. existing    | d) to register    |
| 5. skipping    | e) to work        |
| 6. reading     | f) to employ      |
| 7. updating    | g) to end         |
| 8. logging     | h) to work on     |
| 9. forwarding  | i) to be          |
| 10. running    | j) to write down  |
| 11. processing | k) to pass on     |
| 12. mounting   | l) to make modern |
| 13. using      | m) to start       |

### Insert the words given in the correct form.

	your solution:
1. Bob has got a very old PC, but Pete's computer is even ___ (old).	
2. The last experiment was surely the ___ (hard).	
3. She drove ___ (slow) to the garage.	
4. Can't you work ___ (thorough)? I have no time for correcting your mistakes.	
5. This disease is ___ (good) researched.	
6. Last Monday I ___ (miss) the lecture.	
7. Since my childhood I ___ (live) here.	
8. The party ___ (finish) when they arrived.	
9. The professor ___ (explain) the task in the last seminar.	
10. What are your plans for the evening? I ___ (stay) here because I have to prepare a presentation for the seminar.	
11. If Pete ___ (come) this afternoon, we could go to the movies.	
12. I would rather study chemistry, if I ___ (be) John.	
13. The vaccines would have been used, if the effectiveness ___ (prove).	
14. I ___ (go) to Spain in July. I have already bought my ticket.	
15. The hard disk ___ (replace) next week.	
16. These are very interesting ___ (phenomenon).	
17. I have two ___ (wish) for my next birthday.	
18. Some students ___ (have) a break, while the others were learning.	
19. I do not know anything about the company ___ (?) products are so expensive.	
20. We need to retrieve ___ (much/ many) information than we thought in the first place.	

## Timothy Berners-Lee

1. What and where did Timothy Berners-Lee study?
2. Which reaction of the Americans did the launch of the Soviet Sputnik trigger?
3. When was the term “internet coined”?
4. Which problem did the first internet computers have?
5. What was B.L.’s task at CERN (European Organization for Nuclear Research in Geneva, Switzerland) in 1984?
6. How was the web revolutionized in 1993?



### *Explain:*

- ☐☐☐ hypertext
- ☐☐☐ hyperlinks
- ☐☐☐ HTML
- ☐☐☐ browser
- ☐☐☐ URL

### *Finish this:*

Timothy Berners-Lee is the man who...



## Newton

In 1665, Isaac Newton \_\_\_\_\_ (be) a young scientist \_\_\_\_\_ (study) at Cambridge University in England. He \_\_\_\_\_ (be) very interested in \_\_\_\_\_ (learn) all about light and colours. One bright sunny day, Newton \_\_\_\_\_ (darken) his room and \_\_\_\_\_ (make) a hole in his window shutter, \_\_\_\_\_ (allow) just one beam of sunlight to \_\_\_\_\_ (enter) the room. He then \_\_\_\_\_ (take) a glass prism and \_\_\_\_\_ (place) it in the sunbeam. The result \_\_\_\_\_ (be) a spectacular multicoloured band of light just like a rainbow. The multicoloured band of light \_\_\_\_\_ (call) a colour spectrum.

Newton \_\_\_\_\_ (believe) that all the colours he \_\_\_\_\_ (see) were in the sunlight shining into his room. He \_\_\_\_\_ (think) he then should be able to combine the colours of the spectrum and \_\_\_\_\_ (make) the light white again. To test this, he \_\_\_\_\_ (place) another prism upside-down in front of the first prism. He \_\_\_\_\_ (be) right. The band of colours \_\_\_\_\_ (combine) again into white sunlight. Newton \_\_\_\_\_ (be) the first to prove that white light \_\_\_\_\_ (make up) of all the colours that we can see.