

unit 2 Diagrams, graphs and charts

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In economia e finanza sono molto adoperate le rappresentazioni grafiche per presentare dati statistici, variazioni e mutamenti di valori e parametri. Le rappresentazioni grafiche infatti aiutano a visualizzare molto più rapidamente informazioni spesso complesse da esprimere a parole.

Abbiamo vari tipi di rappresentazione grafica a cui corrispondono in inglese termini diversi. Il termine più generico per indicare astrattamente qualunque tipo di rappresentazione grafica è *diagram*. Ecco la definizione di *diagram* tratta da un dizionario online:

*“A diagram is a simplified and structured visual representation of concepts, ideas, constructions, relations, statistical data, anatomy etc used in all aspects of human activities to visualize and clarify the topic”.*

Ma *diagram* non è l'unico termine. Altre parole sono *graph* e *chart*. Ciascuna di queste ha una sua precisa collocazione d'uso nella lingua. Studia le definizioni che accompagnano i grafici che seguono:

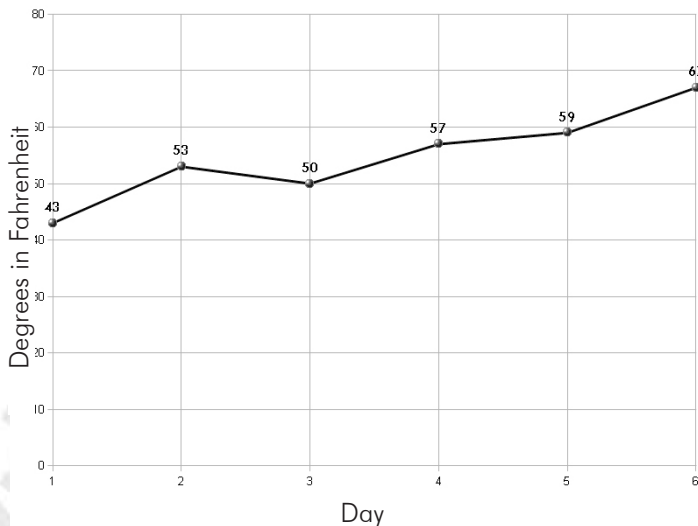
## 2.1 LINE GRAPHS

A line graph is used to present data of variable nature that changes with some of other variable, usually time. Here follow some examples:

### ACTIVITY 1

Study this graph and then answer the questions below:

Temperature in New York



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1) What was the lowest temperature recorded?

.....

2) What was the highest temperature recorded?

.....

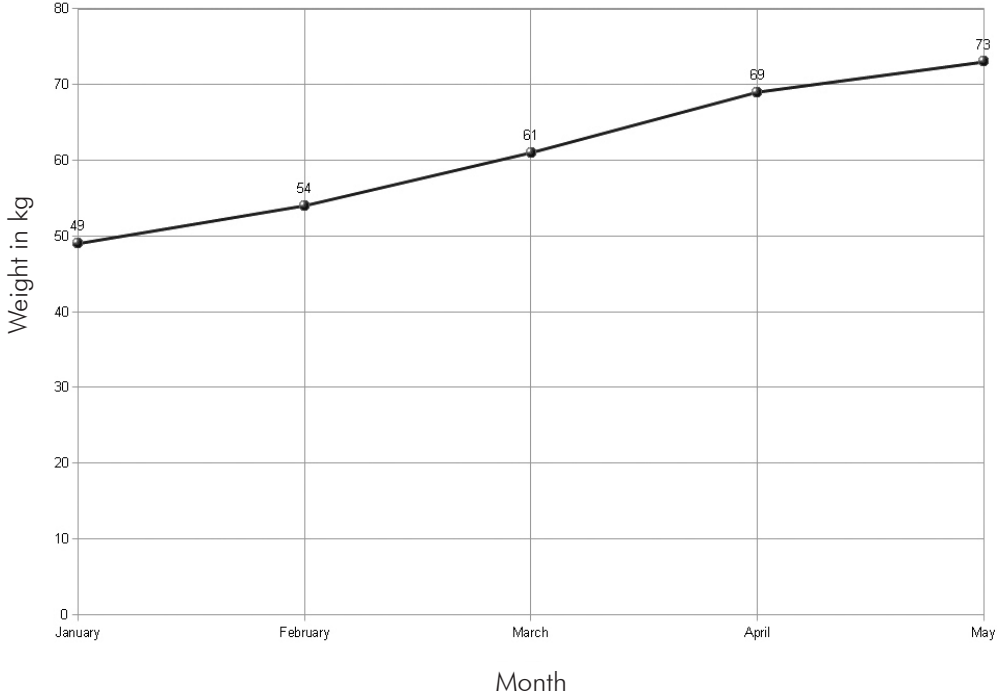
3) At what point did the temperature dip?

.....

## ACTIVITY 2

Study this graph and then answer the questions below:

Sam's weight



1) What was the highest value recorded?

.....

2) What was the lowest value recorded?

.....

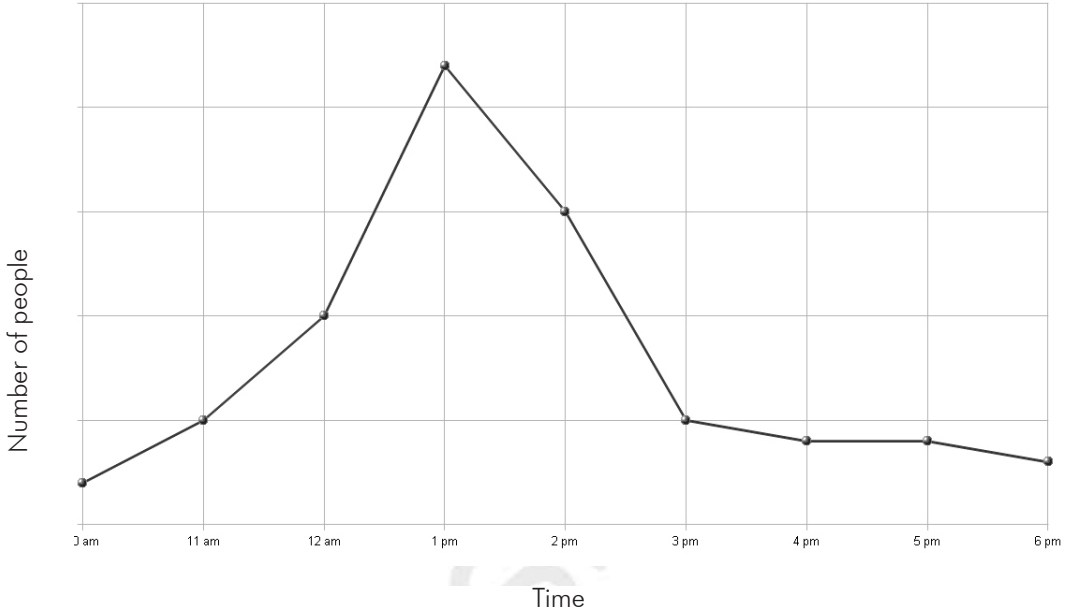
3) Did Sam's weight increase or decrease over time?

.....

ACTIVITY 3

Study this graph and then answer the questions below:

People in a store



1) What time does business start to slow down?  
 .....

2) How many people are in the store when it opens?  
 .....

3) About how many people are in the store at 2:30 pm?  
 .....

4) What was the greatest number of people in the store?  
 .....

5) What was the smallest number of people in the store?  
 .....

## 2.2 CHARTS

A chart in an illustration giving clear information, especially about something that changes over a period of time.

Ex: a weather chart, a temperature chart, a sales chart.

There are different types of charts.

### 2.2.1 Bar Charts/ Bar Graphs

A diagram on which bands of equal width but varying height are used to represent quantities.

These bands can be represented either on a **horizontal bar chart** or a **vertical bar chart**.

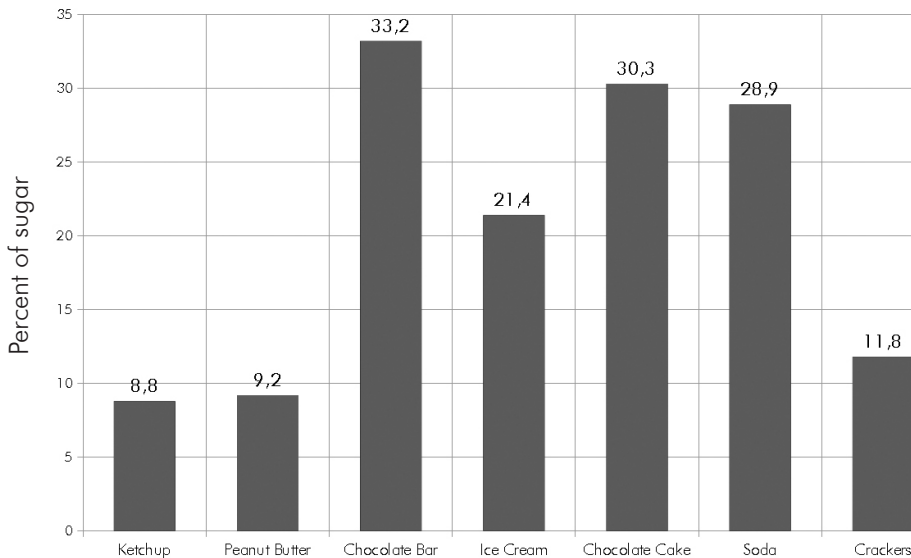
Here are some examples:

#### Vertical Bar Charts

#### ACTIVITY 1

Study this graph and then answer the questions below:

Amount of Sugar in certain Foods



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1) Which food had the highest percentage of sugar?

.....

2) Which food had the lowest percentage of sugar?

.....

3) What percentage of sugar is in soda?

.....

4) What is the difference in percentage of sugar between ice cream and crackers?

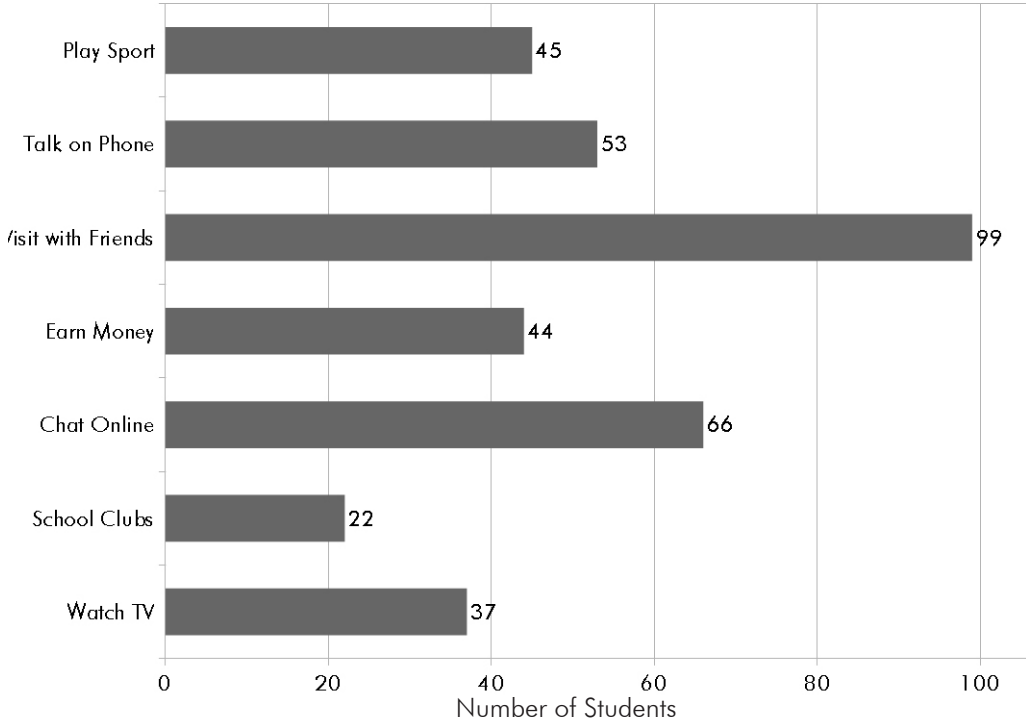
.....

## Horizontal Bar Charts

### ACTIVITY 1

Study this graph and then answer the questions below:

Student's Favourite After-School Activities



1) Which after-school activity do students like most?

.....

2) Which after-school activity do students like least?

.....

3) How many students like to talk on the phone?

.....

4) How many students like to earn money?

.....

5) Which two activities are liked almost equally?

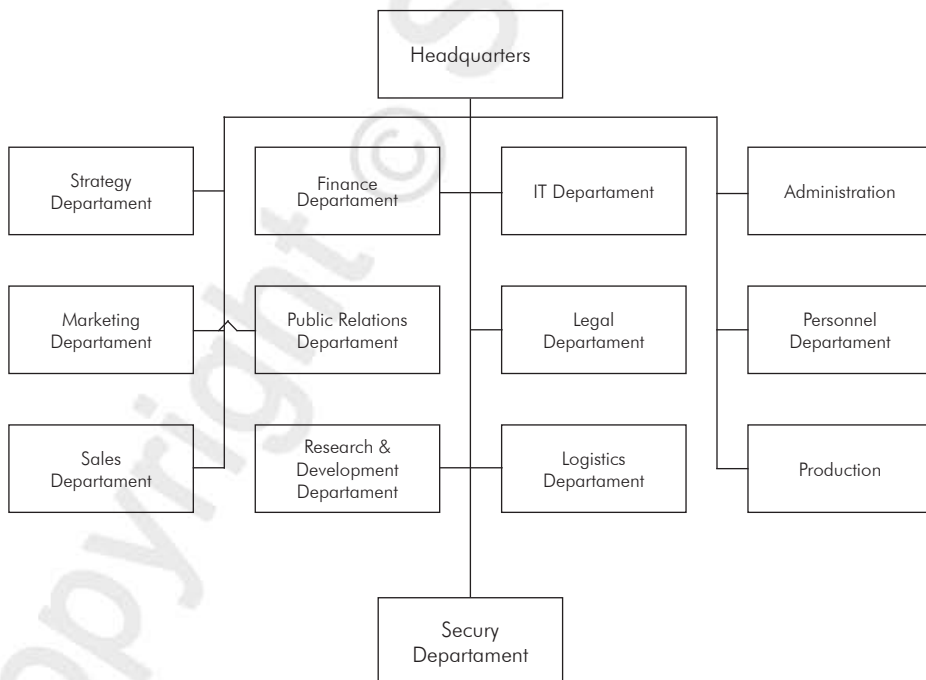
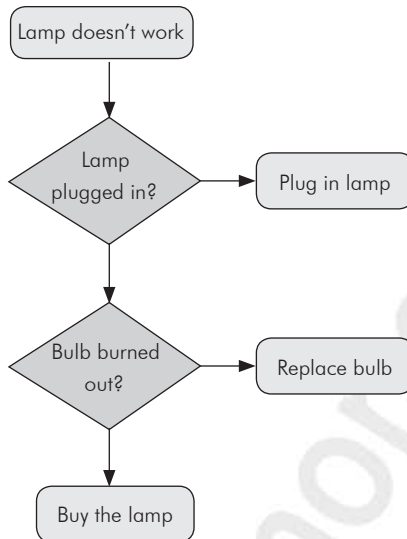
.....

6) List the activities in the graph from the most to the least popular

.....

## 2.2.2 Flow Charts

A diagram showing the development of something through different stages or processes.



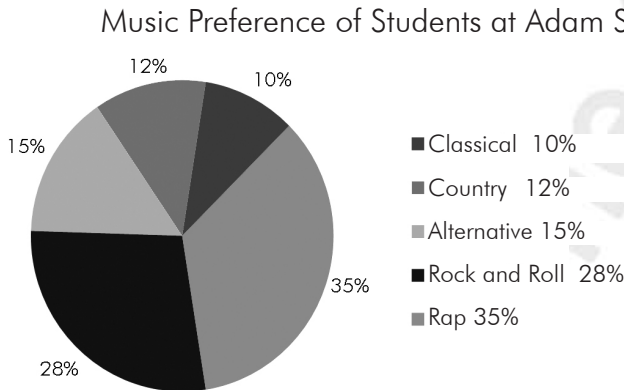


### 2.2.3 Pie Charts

A diagram consisting of a circle divided into sections, each of them representing a specific proportion of the whole, for example in order to show spending in various areas in relation to total expenditure.

#### ACTIVITY 1

Study this graph and then answer the questions below:



- 1) Which kind of music do students prefer most?  
.....
- 2) What kind of music do students prefer least?  
.....
- 3) What percentage of students prefer Alternative?  
.....
- 4) What percentage of students prefer Rock and Roll?  
.....
- 5) List the categories in the graph from the most to the least popular?  
.....

## 2.3 DESCRIBING TRENDS (AND GRAPHS)

Nei testi a carattere economico-finanziario e quindi nelle descrizioni delle rappresentazioni grafiche che li accompagnano, ricorrono continuamente parole che descrivono movimenti o mutamenti di cifre, valute, costi, volumi, dati. Ci sono fondamentalmente tre tipi di "movimento" (TREND) che vengono descritti:



Per ciascuno di questi si usano in inglese una serie di verbi e nomi. Nelle tabelle che seguono troverai una selezione dei verbi e dei nomi che principalmente ricorrono in questo contesto:

UP TREND		
Verbs		Nouns
Transitive	Intransitive	
<i>increase</i>	<i>increase</i>	<i>increase</i>
<i>raise</i>	<i>rise</i>	<i>rise</i>
<i>put/push up</i>	<i>go/be up</i>	
	<i>grow</i>	<i>growth</i>
	<i>boom</i>	<i>boom</i>
	<i>peak</i>	
	<i>rocket</i>	

DOWN TREND		
Verbs		Nouns
Transitive	Intransitive	
<i>decrease</i>	<i>decrease</i>	<i>decrease</i>
	<i>fall</i>	<i>fall</i>
<i>put/push down</i>	<i>go/be down</i>	
	<i>decline</i>	<i>decline</i>
	<i>collapse</i>	<i>collapse</i>
<i>cut</i>		<i>cut</i>
<i>reduce</i>		<i>reduction</i>
	<i>bottom out</i>	

UP AND DOWN TREND		
Verbs		Nouns
Transitive	Intransitive	
	<i>fluctuate</i>	<i>fluctuation</i>
	<i>Zig-zag</i>	
	<i>flutter</i>	<i>flutter</i>

NO TREND		
Verbs		Nouns
Transitive	Intransitive	
<i>keep/hold... /constant</i>	<i>remain stable</i>	<i>stability</i>
<i>maintain</i>	<i>stay constant</i>	<i>fall</i>
	<i>level off</i>	

Questi verbi e questi nomi sono a loro volta quasi sempre accompagnati da una serie di avverbi e aggettivi ricorrenti in base al grado ed alla velocità di cambiamento.

Ecco i più frequenti:

DEGREE OF CHANGE	
Adjective	Adverbs
<i>slight</i>	<i>slightly</i>
<i>moderate</i>	<i>moderately</i>
<i>substantial</i>	<i>substantially</i>
<i>significant</i>	<i>significantly</i>
<i>sharp</i>	<i>sharply</i>
<i>considerable</i>	<i>considerably</i>
<i>dramatic</i>	<i>dramatically</i>

SPEED OF CHANGE	
Adjective	Adverbs
<i>slow</i>	<i>slowly</i>
<i>gradual</i>	<i>gradually</i>
<i>steady</i>	<i>steadily</i>
<i>quick</i>	<i>quickly</i>
<i>rapid</i>	<i>rapidly</i>
<i>sudden</i>	<i>suddenly</i>
<i>abrupt</i>	<i>abruptly</i>

**Nota:** Le preposizioni che accompagnano questi verbi e questi nomi non sono sempre le stesse ma dipendono in genere dal verbo o nome che le precede.

Ad es.: *to fall **by** 25%, to increase **by** 40%, an increase **of** 6.5%, a rise **from** €1m **to** €2m, a rise **in** process.*

Le percentuali sono in genere precedute dalla preposizione **by**.

Ad es.: *Price have risen **by** 3%*

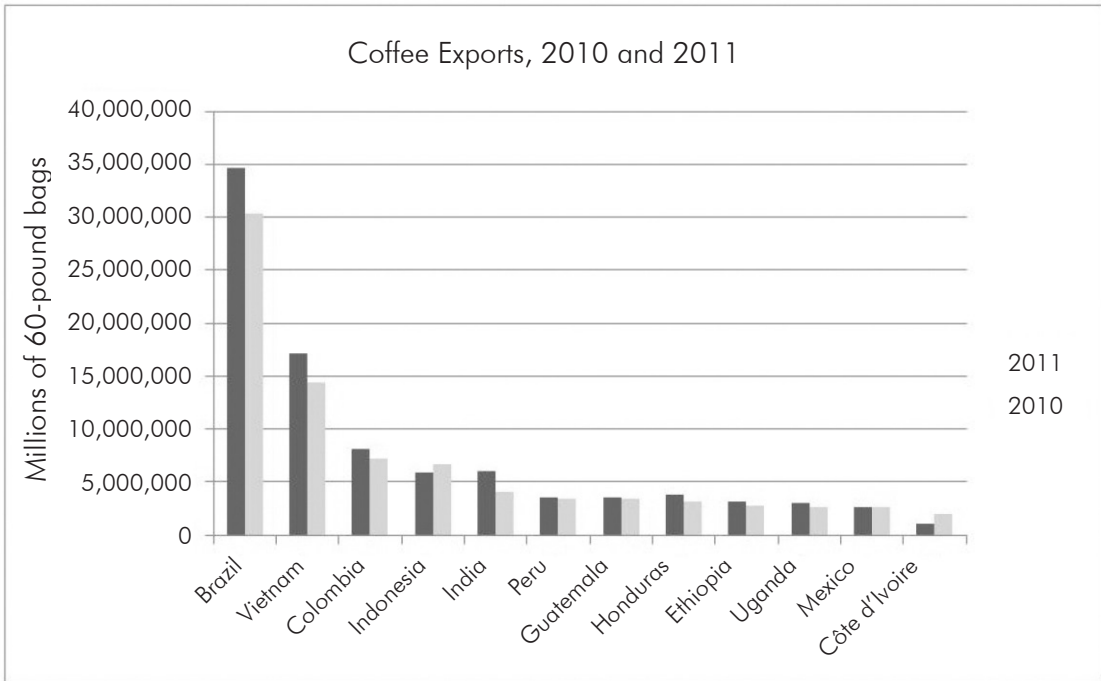
## ACTIVITY 1

Match the figures and the words on the right:

- |                  |             |
|------------------|-------------|
| 1. Increase      | a. Slow     |
| 2. Rapid         | b. Boom     |
| 3. Reduce        | c. Exceed   |
| 4. Sudden        | d. Decrease |
| 5. Decline       | e. Slight   |
| 6. Slump         | f. Expand   |
| 7. Fall          | g. Gradual  |
| 8. Dramatic      | h. Rise     |
| 9. Fall short of | i. Growth   |

## ACTIVITY 2

True or False ?

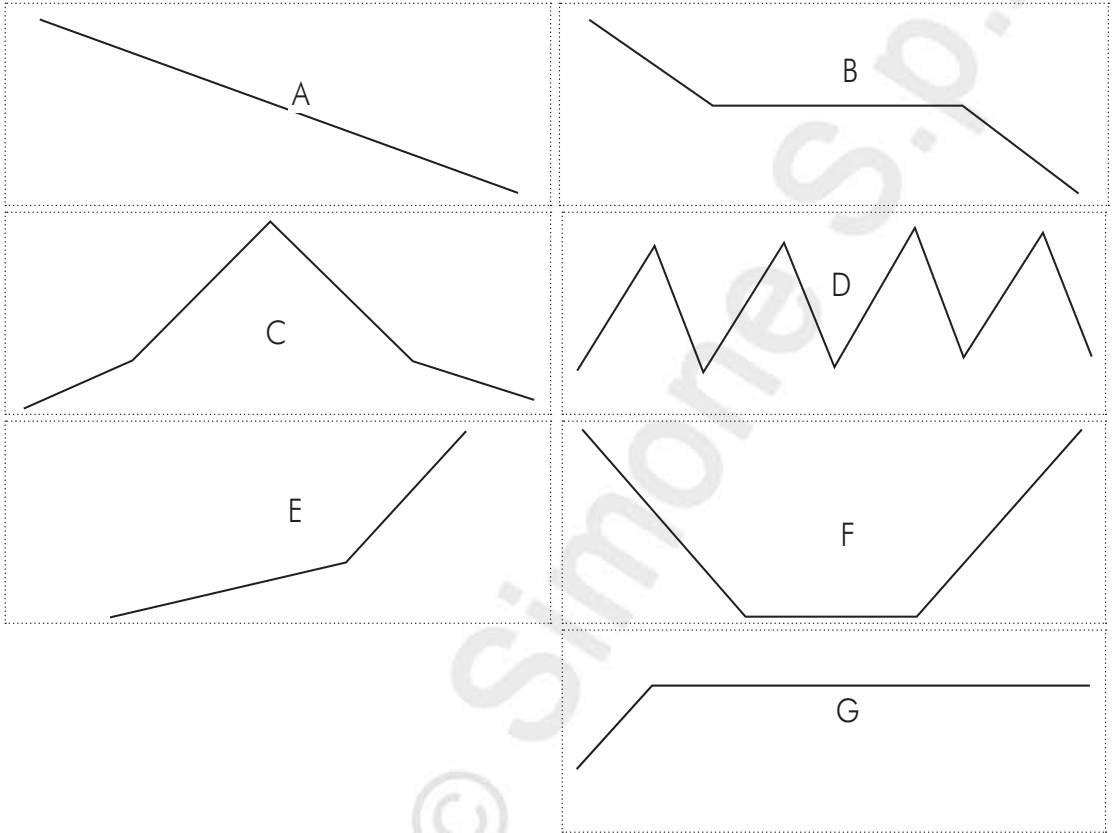


1. In 2010 the Cote d'Ivoire exported a substantial number of bags
2. Peru and Guatemala exported the same quantity of coffee in 2011
3. Brazil was the biggest exporter in 2010
4. Colombia exported more bags than Vietnam in 2011
5. Uganda exported as much coffee as Ethiopia
6. Indonesia exported less coffee than India in 2010

### ACTIVITY 3

#### DESCRIBING GRAPHS

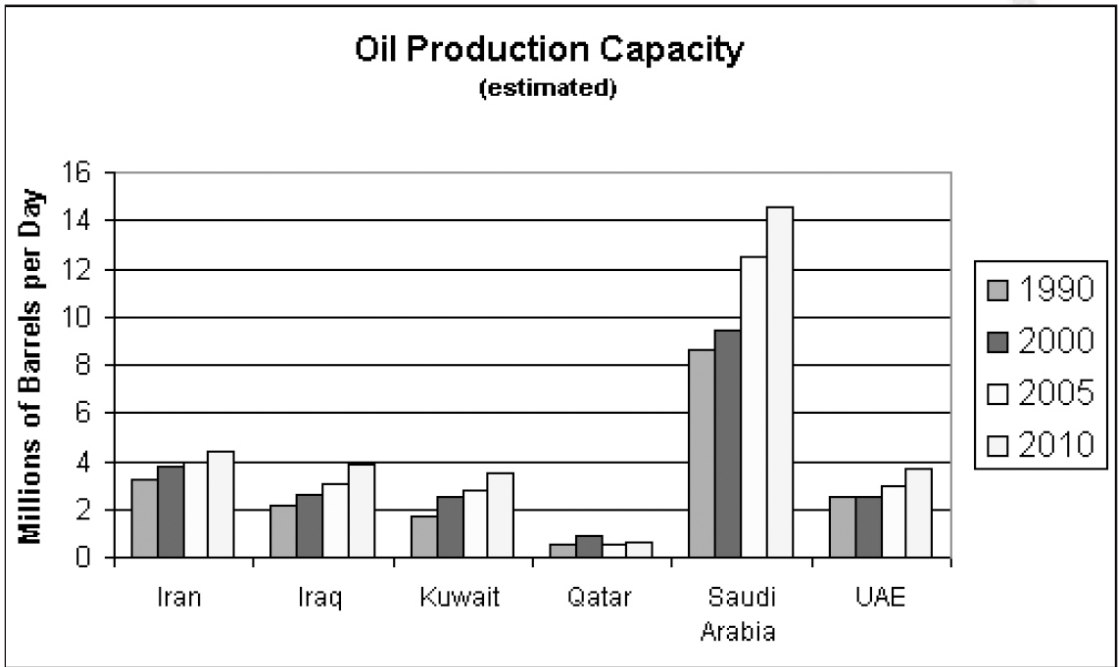
Match the descriptions to the graphs segments.



- |   |   |
|---|---|
| 1. The price peaked in the middle of the year                             | A |
| 2. Prices decreased slowly  | B |
| 3. Customers started well then stayed the same                            | C |
| 4. Sales increased slowly at first before rising sharply                  | D |
| 5. Profits hit rock bottom before increasing sharply                      | E |
| 6. Profits decreased sharply, then remained steady before falling further | F |
| 7. Her blood sugar level fluctuated everyday                              | G |

## ACTIVITY 4

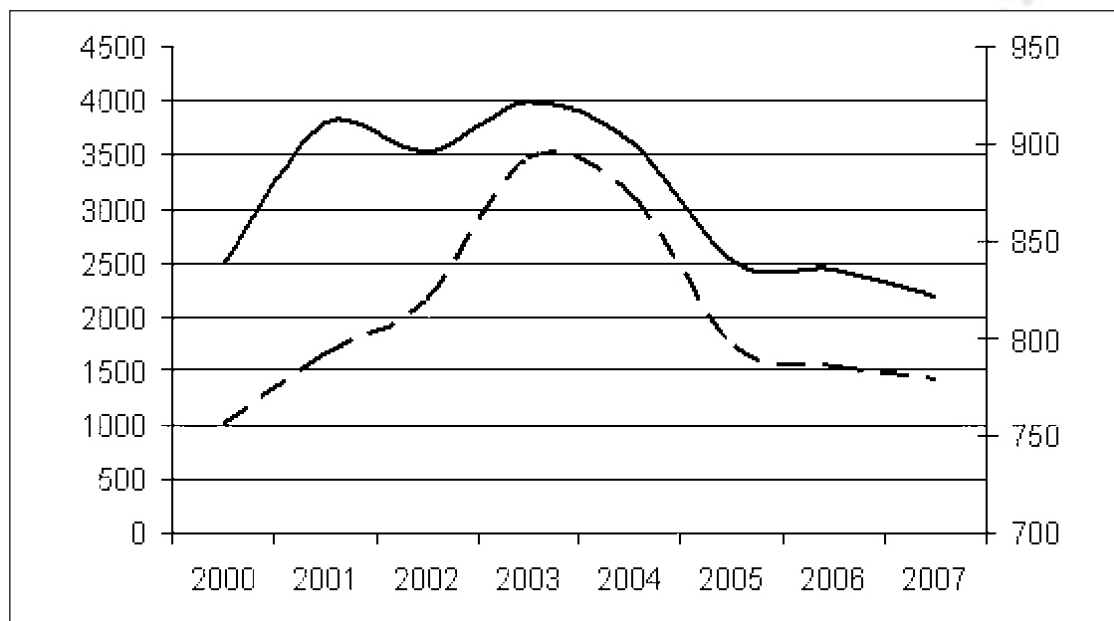
Match the two columns of the activity below:



1. Iran produced four barrels of oil per day
  2. Saudi Arabia produced more than 14 barrels per day
  3. Kuwait produced less than 2 barrels per day
  4. UAE produced the same quantity of oil
  5. Qatar produced the least quantity of oil
  6. Iraq produced as much oil in 2000
- a. in 1990
  - b. in 1990 and 2000
  - c. in 2005
  - d. in 2010
  - e. as Kuwait
  - f. in 2000

## ACTIVITY 5

Look at the graph and then choose the right words in the report below:



### 1. Introduction

This report examines the changes in the total property crime rate and the break and enter rate between 2000 and 2007.

### 2. Findings.

In 2000 the total property crime rate was 2500 offences per 100 000 population. Then the rate **1)** rose (**sharply/sharp**) and reached 3800 in 2001. After a **2)** (**moderate/moderately**) fall in 2002, the rate started to **3)** (**increase/decrease**) again and reached a **4)** (**peak/top**) in 2003. However, after **5)** (**stabilizing/fluctuating**) for some months, the total property crime rate dropped **6)** (**considerably/considerable**) throughout 2004 and the beginning of 2005. The rate stayed at about 2400 offences from mid-2005 **7)** (**to/until**) mid-2006 before **8)** (**decreasing/decrease**) again. In 2000 the break and enter rate was about 760 offences per 100 000 population. **9)** From (**From/since**) 2000 to 2003, there was a steady **10)** (**upward/downward**) trend in the B rate. The rate **11)** (**reached/arrived**) its highest point in 2003 and then **12)** (**showed/fell**) a significant downward trend until mid-2005. After being stable for a few months, the rate continued to fall **13)** (**slightly/slight**), dropping to around 780 in 2007.

### 3. Conclusion

The total property crime rate fluctuated from 2000 to 2003, whereas the break and enter rate showed a general upward trend. Both rates peaked in 2003, fell significantly until mid-2005, stabilized for some months and **14)** (**fell/grew**) slightly during 2006 and 2007.

## 2.4 READING TEXT

# CHINA FORECAST CUT BY THE WORLD BANK

The World Bank has **cut** its growth **forecasts** for China amid growing fears over the health of the world's second-largest economy.

It now expects the Chinese economy to **grow** by 8.2 this year from an earlier forecast of 8.4pc, because of **sluggish** US and European **demand** for the country's exports and a weaker domestic property market.

The World Bank warned that an escalation of the eurozone **debt crisis** would have "an" even greater negative impact on growth. It said China should focus on fiscal policy rather than monetary policy to **boost** growth.

"Fiscal stimulus would ideally be less credit-fuelled, less local government-funded and less infrastructure-oriented," the World Bank said. "Fiscal measures to support **consumption**, such as targeted tax cuts, social welfare **spending** and other social **expenditures**, should be viewed as the first priority".

China's export growth has been much slower than economists had forecast and annual economic growth in the first quarter was 8.1 pc, the slowest **rate** in almost three years.

"Further stimulus measures are likely to be forthcoming, but investors looking for a dramatic loosening of monetary and fiscal **policy** will be disappointed", said Tom Rafferty of the Economist Intelligence Unit.

(from the Daily Telegraph, 24 May 2012)

Cerca l'equivalente italiano di tutti i termini evidenziati in grassetto:

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### ACTIVITY 1

True or False?

1. China is the third largest economy
2. China's economy is expected to grow by 8.2%
3. The Chinese should concentrate on monetary policy only
4. The first priority is to support consumption
5. Chinese exports have been significantly slower than expected
6. Tom Rafferty stated that at the moment stimulus measures are not required