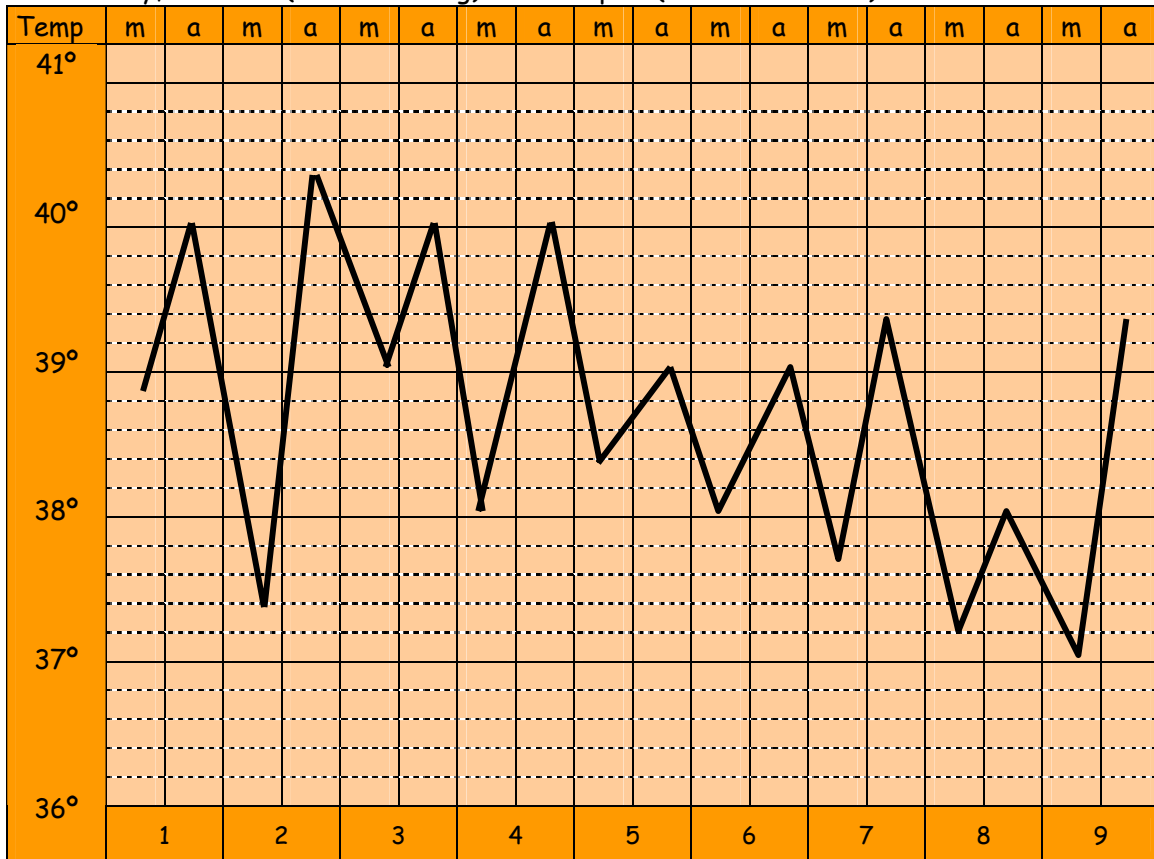## READING GRAPHS 1

1. The influenza

In 1889 many people died of influenza in Europe. Antibiotics were unknown. To study this disease, we have the graph representing the temperature of a patient, which has been measured twice a day, at 8 a.m. (in the morning) and at 4 p.m. (in the afternoon).

Temp	m	a	m	a	m	a	m	a	m	a	m	a	m	a	m	a	m	a
41°																		
40°																		
39°																		
38°																		
37°																		
36°																		

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

a) When was the temperature higher, in the morning or in the afternoon?
b) When was the temperature the highest?
c) What were temperatures on the ninth day?
d) Which days did the patient have a temperature of 38°C?
e) When is the temperature increasing? And decreasing?

2. Matching.
Without drawing points, match each graph with the following data tables. You must name the coordinate axes and explain your choice. If you do not find the appropriate graph, draw your own version.

I) Water cooling

Time (min)	0	5	10	15	20	25
Temperature (°C)	100	84	69	55	42	36

II) People who visited EuroDisney during the first week of May

Day	1	2	3	4	5	6	7
People (thousands)	314	320	174	125	150	142	145

III) Cost of photocopies

Number of photocopies	10	20	30	40	50	60	70
Cost (euros)	0.50	1	1.50	2	2.50	3	3.50

IV) Number of amoebae in a culture.

Time (hours)	0	1	2	3	4	5	6
Number of amoebas	4	6	9	13	20	30	46

V) Area of a square.

Size (cm)	1	2	3	4	5	6	7
Area (cm^2)	1	4	9	16	25	36	49

VI) Change in temperature depending on the altitude of the atmosphere.

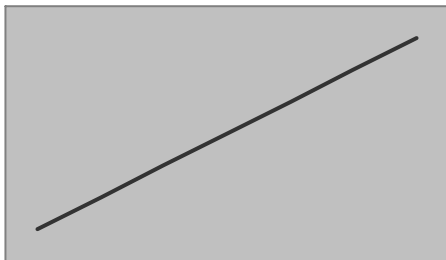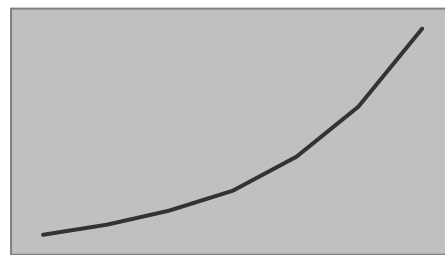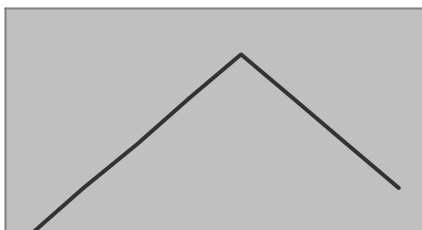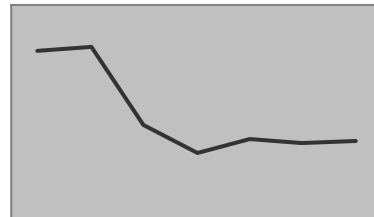| Altitude (Km)	0	10	20	30	40	50	60
Temperature (º C)	-20	-48	-50	-38	-18	6	-12

a)

b)
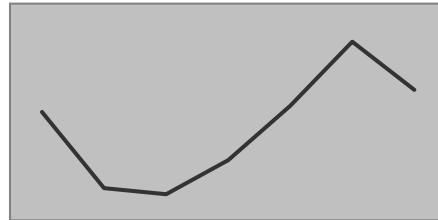
c)

d)

e)

f)

SOLUTION

1. The Influenza

a) When was the temperature higher, in the morning or in the afternoon? In the afternoon
b) When was the temperature the highest? On the second day, in the afternoon
c) What were temperatures on the ninth day? 37° (morning) and 39.4° (afternoon)
d) Which days did the patient have a temperature of 38°C? On the fourth day (morning), the sixth day (morning) and the eighth (afternoon).
e) When is the temperature increasing? And decreasing? Every day from morning to afternoon the temperature is increasing. From afternoon to morning (next day) the temperature is decreasing.
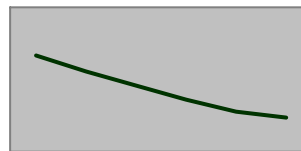
2. Matching

I) Water cooling

Time (min)	0	5	10	15	20	25
Temperature (°C)	100	84	69	55	42	36

It is always decreasing

a)

II) People who visited EuroDisney during the first week of May

Day	1	2	3	4	5	6	7
People (thousands)	314	320	174	125	150	142	145

f)
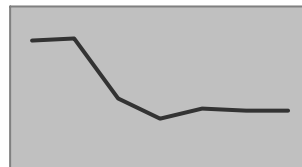
III) Cost of photocopies

Number of photocopies	10	20	30	40	50	60	70
Cost (euros)	0.50	1	1.50	2	2.50	3	3.50

It is a line, it is increasing

c)

Function: $y = 0.05x$
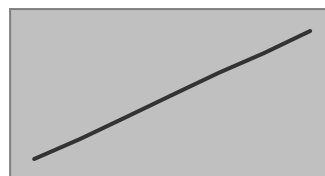
IV) Number of amoebae in a culture.

Time (hours)	0	1	2	3	4	5	6
Number of amoebas	4	6	9	13	20	30	46

It is increasing faster than a line

d)
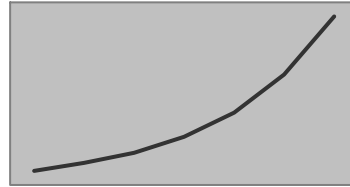
V) Area of a square.

Size (cm)	1	2	3	4	5	6	7
Area (cm^2)	1	4	9	16	25	36	49

It is increasing faster than a line and faster than IV)
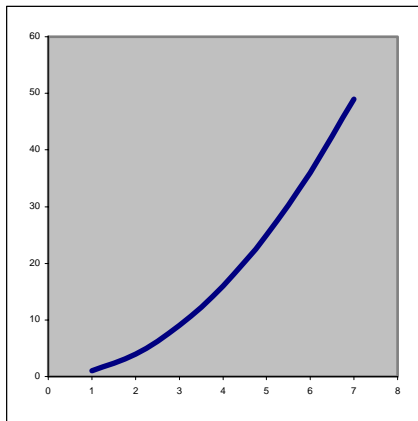
VI) Change in temperature depending on the altitude of the atmosphere.

Altitude (Km)	0	10	20	30	40	50	60
Temperature (° C)	-20	-48	-50	-38	-18	6	-12

It is decreasing from 0 to 20
Increasing from 20 to 50
Decreasing form 50 to 60

b)