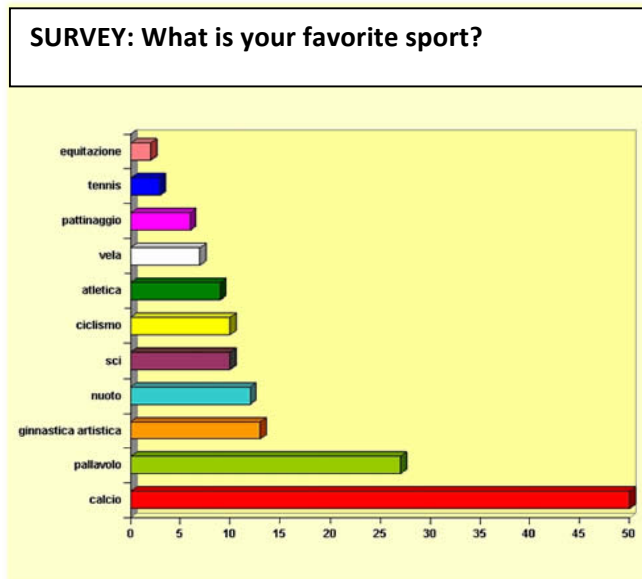


# Statistics/1

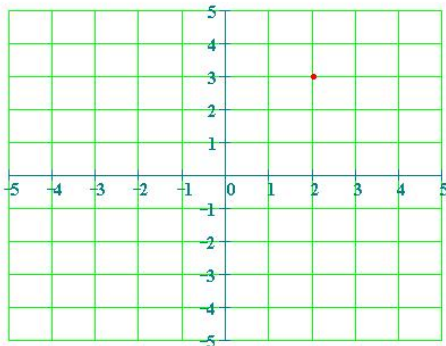
This is a **bar chart**.



1. A bar chart show frequency or quantity using rectangles wich are the same width, but different heights.

From site: [www.icsbellano.org](http://www.icsbellano.org)

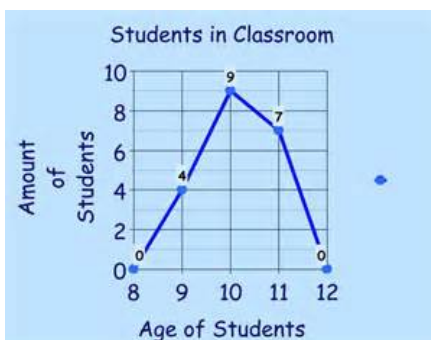
This is a **Cartesian Plan**



2.It is a plane which has a horizontal line (x axis) and a vertical line (y axis). It is also known as coordinate plane.

From the site: [www.dm.unibo.it](http://www.dm.unibo.it)

## Line graph



3.This is a line graph to show a trend or data using X and Y axes.

From site: [softchalk.com](http://softchalk.com)

## Statistics/2

Statistics studies phenomena or facts that involve a large amount of subjects ( people, animals, things).

### The bar chart

In picture #1 we can see data referred to “The favorite sport” ; the coloured lines named histograms immediately show people’s preferences. The line from 0 to 5 corresponds to 5 people....

### The average

Now we analyze data of an Italian school: Primary school “Don Milani”

1^A	1^B	1^C	2^A	2^B	2^C	3^A	3^B	3^C	4^A	4^B	4^C	5^A	5^B	5^C	classes
25	24	25	23	25	24	24	22	24	25	24	23	24	24	21	students
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	data

In Statistics we can’t report all the numbers , we use only a number, this number is the **average**.

How to calculate an **average** ?

1. Add the numbers together

$$25 + 24 + 25 + 23 + 25 + 24 + 24 + 22 + 24 + 25 + 24 + 23 + 24 + 24 + 21 = 357 \text{ (sum)}$$

2. Divide the sum by the number of the data

$$357 : 15 = 23,8$$

Adaptation from: AA VV Sussidiario CETEM vol 5

### The Cartesian plan and the line graph

We use the Cartesian plan to register changes: human temperatures , weather temperatures,...

We use the Cartesian plan more or less like a “Battle Ship”.

We can draw a dot using a pair of numbers from X and Y axes (*look at the pictures 2,3 on page 1*)

In the line graph (*in picture #3*) the student that are 9 years old, are.....

# What was the weather like?

Student A/1

Look at the sheet taken from the website [www.3Bmeteo.com](http://www.3Bmeteo.com) which describes the weather in Grigno from Saturday 9<sup>th</sup> of May 2015 and tell your friend (student B) how the weather was.

Day	Weather	Morning	Afternoon
-----	---------	---------	-----------

Saturday 09 May	Changeable	Temperature 14°C Wind weak 4Km/h var Rain - Humidity 91 %	Temperature 27°C Wind weak 2Km/h var Rain - Humidity 49 %
Sunday 10 May	Sunny	Temperature 10°C Wind weak 6Km/h NNW Rain - Humidity 75 %	Temperature 27°C Wind weak 6Km/h SW Rain - Humidity 37 %
Monday 11 May	Changeable	Temperature 13°C Wind weak 2Km/h var Rain - Humidity 89 %	Temperature 28°C Wind weak 6Km/h S Rain - Humidity 70 %
Tuesday 12 May	Rainy	Temperature 10°C Wind weak 0Km/h var Rain 0 – 7 mm Humidity 80 %	Temperature 10°C Wind weak 2Km/h var Rain 0 – 5 mm Humidity 80 %
Wednesday 13 May	Sunny	Temperature 10°C Wind weak 7Km/h NNW Rain - Humidity 70 %	Temperature 27°C Wind weak 6Km/h SW Rain - Humidity 30 %
Thursday 14 May	Sunny	Temperature 10°C Wind weak 7Km/h NNW Rain - Humidity 70 %	Temperature 23°C Wind weak 6Km/h SW Rain - Humidity 50 %
Friday 15 May	Rainy	Temperature 12°C Wind weak 7Km/h NNW Rain 0 -10 mm Humidity 90 %	Temperature 18°C Wind weak 6Km/h SW Rain 0 – 10 mm Humidity 90 %
Saturday 16 May	Changeable	Temperature 12°C Wind weak 7Km/h NNW Rain - Humidity 80 %	Temperature 12°C Wind weak 7Km/h NNW Rain - Humidity 80 %
Sunday 17 May	Sunny	Temperature 12°C Wind weak 7Km/h NNW Rain - Humidity 70 %	Temperature 23°C Wind weak 7Km/h NNW Rain - Humidity 60 %

Student

Answer the questions and complete the sentences.

In Grigno

There were..... sunny days.

There \_ \_ \_ \_ ..... changeable days.

\_ \_ \_ \_ \_ were.....rainy days.

There were..... s \_ \_ wy days.

There were.....wi \_ \_ \_ days.

There were.....f \_ \_ \_ \_ y days.

T \_ \_ \_ \_ \_ .....stormy \_ \_ \_ \_ \_.

There were.....\_ l \_ u \_ y days.

Th \_ r \_ were.....partly \_ \_ \_ \_ \_ days.

Total considered days.....

The most frequent weather condition was .....

The less frequent weather condition was.....

Be careful: ..... -> fill in the numbers , \_ \_ \_ -> fill in the letters

# How was the temperature?

Student D/1

Look at sheet taken from the website [www.3 B meteo .com](http://www.3 B meteo .com) which describe the weather in Grigno from Saturday 09<sup>th</sup> of May 2015 and tell your friend the maximum and minimum temperature for each day.

Day	Weather	Morning	Afternoon
-----	---------	---------	-----------

Saturday 09 May	Changeable	Temperature 14°C Wind weak 4Km/h var Rain - Humidity 91 %	Temperature 27°C Wind weak 2Km/h var Rain - Humidity 49 %
Sunday 10 May	Sunny	Temperature 10°C Wind weak 6Km/h NNW Rain - Humidity 75 %	Temperature 27°C Wind weak 6Km/h SW Rain - Humidity 37 %
Monday 11 May	Changeable	Temperature 13°C Wind weak 2Km/h var Rain - Humidity 89 %	Temperature 28°C Wind weak 6Km/h S Rain - Humidity 70 %
Tuesday 12 May	Rainy	Temperature 10°C Wind weak 0Km/h var Rain 0 – 7 mm Humidity 80 %	Temperature 10°C Wind weak 2Km/h var Rain 0 – 5 mm Humidity 80 %
Wednesday 13 May	Sunny	Temperature 10°C Wind weak 7Km/h NNW Rain - Humidity 70 %	Temperature 27°C Wind weak 6Km/h SW Rain - Humidity 30 %
Thursday 14 May	Sunny	Temperature 10°C Wind weak 7Km/h NNW Rain - Humidity 70 %	Temperature 23°C Wind weak 6Km/h SW Rain - Humidity 50 %
Friday 15 May	Rainy	Temperature 12°C Wind weak 7Km/h NNW Rain 0 -10 mm Humidity 90 %	Temperature 18°C Wind weak 6Km/h SW Rain 0 – 10 mm Humidity 90 %
Saturday 16 May	Changeable	Temperature 12°C Wind weak 7Km/h NNW Rain - Humidity 80 %	Temperature 12°C Wind weak 7Km/h NNW Rain - Humidity 80 %
Sunday 17 May	Sunny	Temperature 12°C Wind weak 7Km/h NNW Rain - Humidity 70 %	Temperature 23°C Wind weak 7Km/h NNW Rain - Humidity 60 %



## Temperature average

Students A,B,C,D,E/1

Calculate the **average** of maximum temperatures from the 9<sup>th</sup> of May to the 17<sup>th</sup> of May 2015

The \_\_\_\_\_ is.....°C

Calculate the **average** of minimum temperature from 9<sup>th</sup> May to 13<sup>th</sup> May 2015

The \_\_\_\_\_ is.....°C

What was the hottest day ?

What was the coolest day?

What is the temperature range of Tuesday the 13th of May?

.....

# Report

Student F/1

We observed the data from the site <http://www.3bmeteo.com/meteo/grigno>  
about the temperature from.....to.....

We observed ..... days in total.

In these ..... days the weather was: ☐ good ☐ bad ☐ so and so

The ..... of temperature was of.....degrees.

The hottest day was .....

The coolest day was.....

In this lesson we have learned: .....  
.....  
.....