## **DRAWING TOOLS**

TRIANGULAR SET SQUARE: A set square is a tool to draw perpendicular and parallel lines and to obtain angles.

There are two types of triangular set squares:

- A right-angled isosceles triangle
- A right-angled scalene triangle



COMPASS: device used to draw circles and arcs.



GRADUATED RULER: device used to measure lines.



PROTRACTOR: a tool to measure the degrees of an angle.

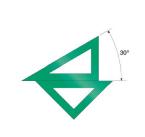


HOW TO DRAW VERTICAL AND HORIZONTAL PARALLEL LINES WITH THE SET SQUARE

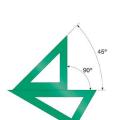




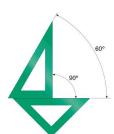
DRAWING ANGLES: WE CAN GET 15º, 30º, 45º, 60º, 75º, 90º, 120º, 135º, ...

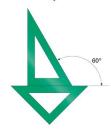






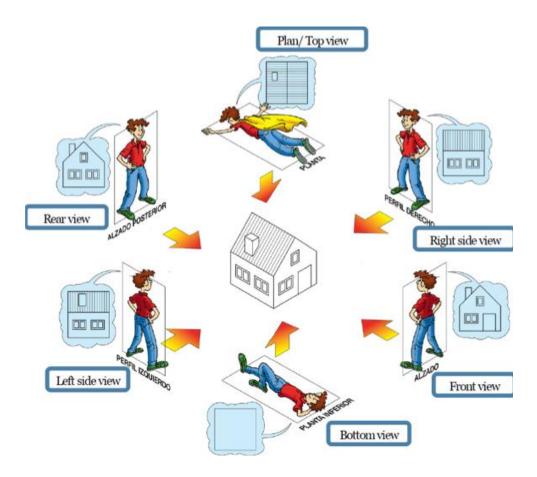


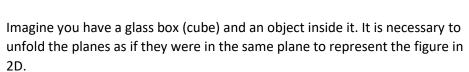


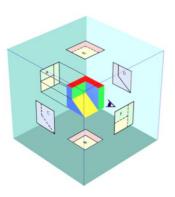


## **VIEWS OF AN OBJECT**

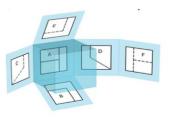
The main views of an object are the orthogonal projection of itself on the six planes of a cube, so six views are possible depending on the direction we watch an object from.







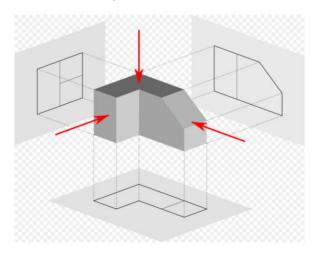
By unfolding the box, six views of the object are possible:

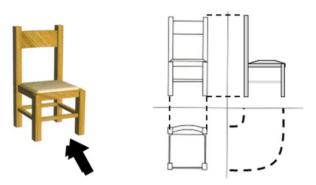


## **MAIN VIEWS OF AN OBJECT**

Normally the object is drawn as three separate, related views because in this way, the object is fully described. They are:

- Front view. It is a drawing of the object as if you were looking directly at the front of the object.
- Side view (left or right). It is a drawing of the object, when it has been rotated so that one of it sides is now directly in view.
- Plan view. It is a "bird eye" view, from above.





## **GLOSSARY**

Tool

Set square

Graduated rule

Protractor

Compass

Parallel

Perpendicular

Angle

Degree

Front view

Side view

Plan view

Verbs: to draw, to measure