

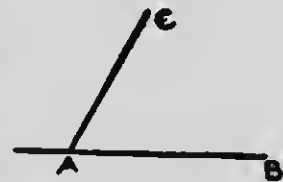
Two straight lines which have the same direction are said to be **parallel** to one another.



Parallel straight lines cannot intersect. For if they did, at the point of intersection they would have different directions, and would therefore have different directions throughout their entire lengths, and hence would not be parallel.



To construct with the protractor at the point **A** in the line **AB** an angle of any required magnitude, say 63° : Place the centre of the protractor at **A**, and let the line joining the centre with the point on the circumference which indicates 0° , rest along **AB**. At the point where the 63° line meets the circumference make a fine mark, **C**, on the paper. Removing the protractor, join **AC**. The angle **BAC** is of magnitude 63° .



Exercises.

All figures in this and succeeding exercises must be accurately constructed with instruments.

1. With the dividers (or compasses) take off on the ruler distances 8, 11, 17, 34 millimetres. With the points of the dividers mark on your paper points at these distances from each other. With the ruler draw straight lines joining each pair of points, thus getting straight lines of lengths 8, 11, 17, 34 millimetres.

2. With the compasses describe circles having radii of lengths 5, 7, 10, sixteenths of an inch.

3. With the protractor construct angles of magnitude 10° , 15° , 25° , 30° , 37° , 43° ,