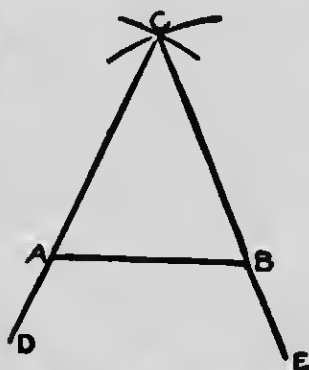


In each case compare the magnitudes of the angles at the base.

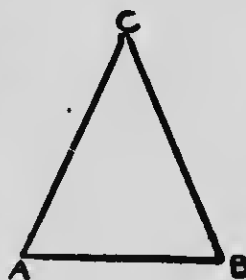
The result of our observations is that the angles at the base of an isosceles triangle are equal.

Of course it would follow from this that all the angles in an equilateral triangle are equal, as we have already seen.

Prolong the sides **CA**, **CB**, and adjusting the bevel to the angles **BAD**, **ABE**, on the other side of the base, they will be found to be equal. This may also be reasoned out as follows: The angles on one side of a straight line at any point in it make up 180° . But the angles **CAB** and **CBA** are equal. Therefore the remaining angles **BAD** and **ABE** are also equal.



3. Taking any line **AB**, with the bevel or protractor construct equal angles at **A** and **B**, and produce the bounding lines of these angles to meet in **C**. Then employing the dividers or compasses, compare the lengths of the sides **CA**, **CB**, of the triangle **CAB**.



Construct the following triangles:

Base 25 millimetres, each of angles at base 75° .

Base 70 millimetres, each of angles at base 30° .

Base 3 in., each of angles at base 45° .

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