Draw two other bases B_1C_1, B_2C_2 of lengths 30 and 45 millimetres. At B_1 and B_2 make angles $C_1B_1A_1$, $C_2B_2A_2$, each equal to CBA; and at C_1 and C_2 make angles $B_1C_1A_1$, $B_2C_2A_2$, each equal to BCA. It follows (Ch. III., 4) that the angles at A, A_1, A_2 are equal to one another. Hence the three triangles are equiangular and *similar.*

Now measure the lengths of the sides of the triangles $A_1B_1C_1$ and $A_2B_2C_2$. If the constructions have been accurately made, we shall have the following numerical values:

$BC=15$	$B_1C_1=30$	$B_2C_2=45$
$AB=20$	$A_1B_1=40$	$A_2B_2=60$
$AC=25$	$A_1C_1=50$	$A_2C_2=75$

Then calling those sides *corresponding sides* which are opposite to equal angles, we observe that corresponding sides about equal angles are proportional, *i.e.,*

$$\frac{15}{20} = \frac{30}{40} = \frac{45}{60}$$

$$\frac{20}{25} = \frac{40}{50} = \frac{60}{75}$$

$$\frac{15}{25} = \frac{30}{50} = \frac{45}{75}$$

3. Again, construct a triangle ABC, whose base BC is 24, and sides AB and AC, 30 and 40 millimetres. Draw two other bases B_1C_1 and B_2C_2 of lengths 36 and 60 millimetres. At B_1 and B_2 make angles $C_1B_1A_1$, $C_2B_2A_2$, each equal to CBA; and at C_1 and C_2 make angles $B_1C_1A_1$, $B_2C_2A_2$, each equal to BCA. It follows (Ch. III., 4) that the angles at A, A_1, A_2 are equal to one another. Hence the three triangles are equiangular and *similar.*