SIMILAR TRIANGLES

Two triangles are similar if their angles are congruent, and their sides are in proportion. In fact, if their angles are congruent, two triangles are automatically congruent, so their sides are automatically in proportion.





EXAMPLES:





Similar triangles are the basis of trigonometry, and were used in the past to estimate the sizes of difficult to measure objects.

At any particular time of day, all nearby vertical objects and their shadows form similar triangles. If a 6 foot tall woman casts an 8 foot long shadow, and a nearby building casts a 132 foot shadow, find the height of the building.