

Simple Angles: Constructing triangles

1. Make a right-angled isosceles triangle. This is a triangle with a right angle and such that the two angles that are not right angles are equal. What is the size of these non right angles?
2. Make a right-angled triangle with one of the non right angles as 60° . What is the size of the other non right angle?
3. Make a quadrilateral with two opposite angles of 60° such that the other two opposite angles are equal. What is the size of these other angles?
4. Make a quadrilateral with two opposite angles of 105° and with one of the other angles equal to 90° . What is the size of the remaining angle?
5. Make a quadrilateral with two adjacent angles of 60° and one other angle of 120° . What is the other angle? What is the special name given to quadrilaterals like this one?
6. Make three pentagons with three angles of 90° and one of 135° . What is the size of the other angle?
7. Make three hexagons with opposite angles of 60° and 90° . What are the sizes of the other angles? Is it possible for such a hexagon to have the remaining angles equal? If so, what is the size of one of these angles?