

and the angle opposite to the greater one of them; (d) given two sides and the angle opposite to the smaller one of them (in this case there can be two solutions, or one, or none).

**121.** An isosceles triangle: (a) given its base and another side; (b) given its base and a base angle; (c) given its base angle and the opposite side.

**122.** A right triangle: (a) given both of its legs; (b) given one of the legs and the hypotenuse; (c) given one of the legs and the adjacent acute angle.

**123.** An isosceles triangle: (a) given the altitude to the base and one of the congruent sides; (b) given the altitude to the base and the angle at the vertex; (c) given the base and the altitude to another side.

**124.** A right triangle, given an acute angle and the hypotenuse.

**125.** Through an interior point of an angle, construct a line that cuts off congruent segments on the sides of the angle.

**126.** Through an exterior point of an angle, construct a line which would cut off congruent segments on the sides of the angle.

**127.** Find two segments whose sum and difference are given.

**128.** Divide a given segment into 4, 8, 16 congruent parts.

**129.** On a given line, find a point equidistant from two given points (outside the line).

**130.** Find a point equidistant from the three vertices of a given triangle.

**131.** On a given line intersecting the sides of a given angle, find a point equidistant from the sides of the angle.

**132.** Find a point equidistant from the three sides of a given triangle.

**133.** On an infinite line  $AB$ , find a point  $C$  such that the rays  $CM$  and  $CN$  connecting  $C$  with two given points  $M$  and  $N$  situated on the same side of  $AB$  would form congruent angles with the rays  $CA$  and  $CB$  respectively.

**134.** Construct a right triangle, given one of its legs and the sum of the other leg with the hypotenuse.

**135.** Construct a triangle, given its base, one of the angles adjacent to the base, and the difference of the other two sides (consider two cases: (1) when the smaller of the two angles adjacent to the base is given; (2) when the greater one is given).

**136.** Construct a right triangle, given one of its legs and the difference of the other two sides.