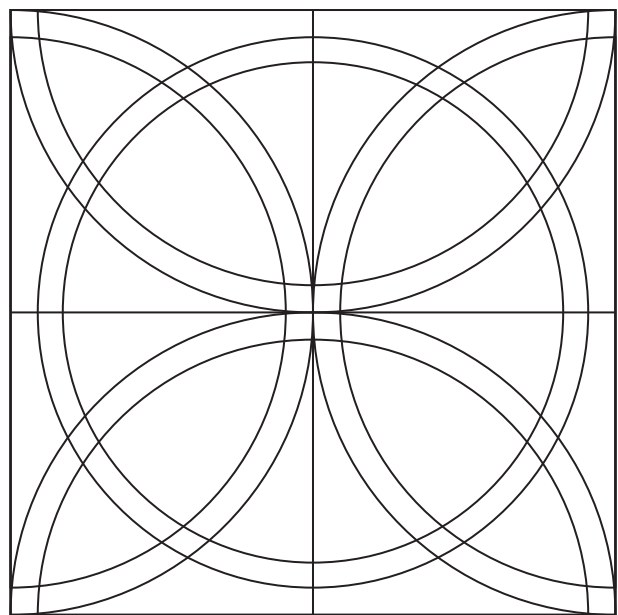
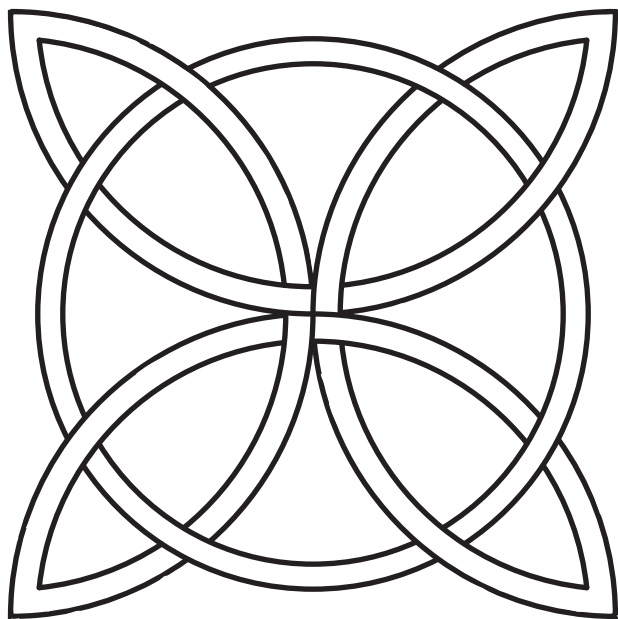


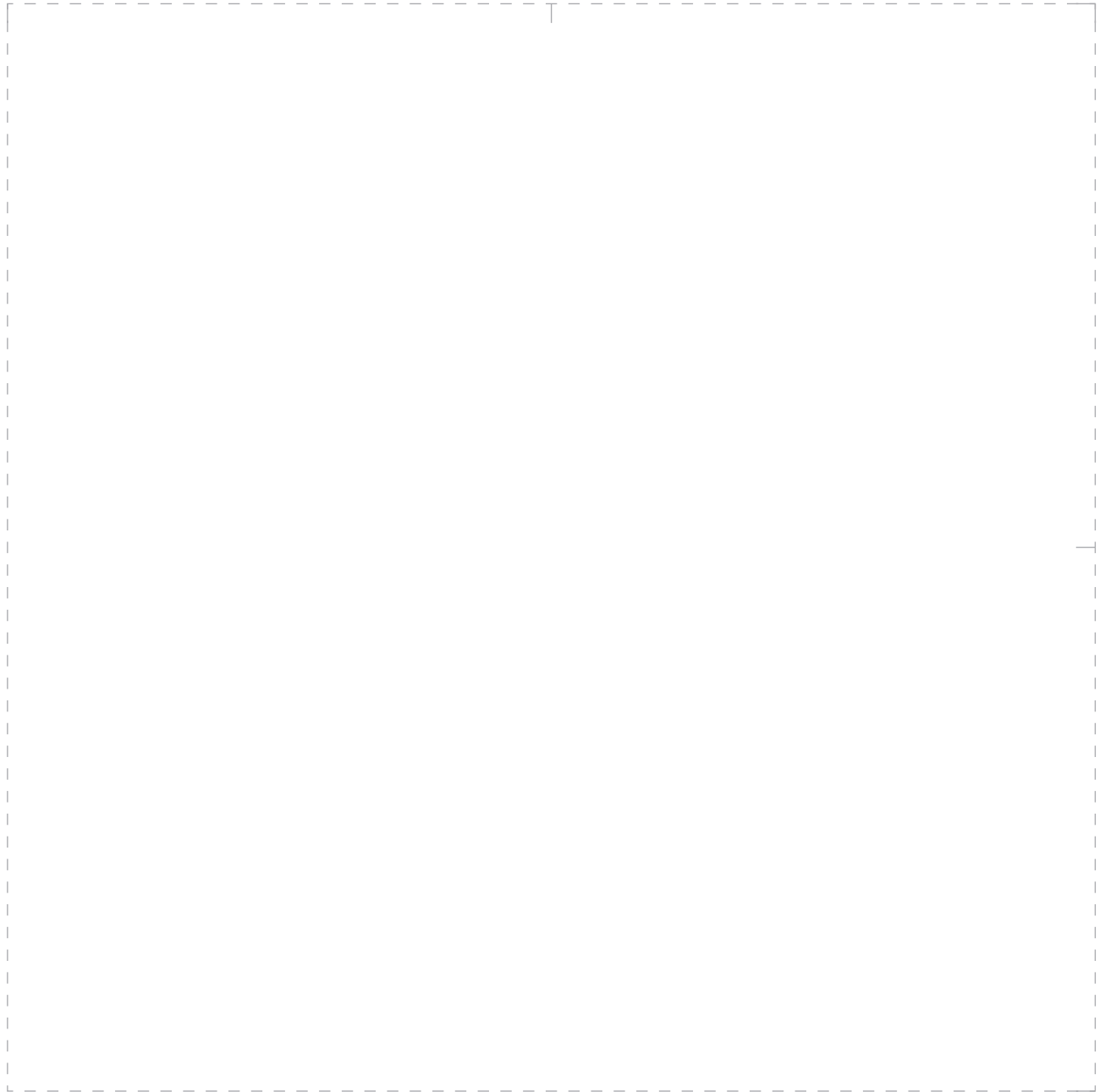
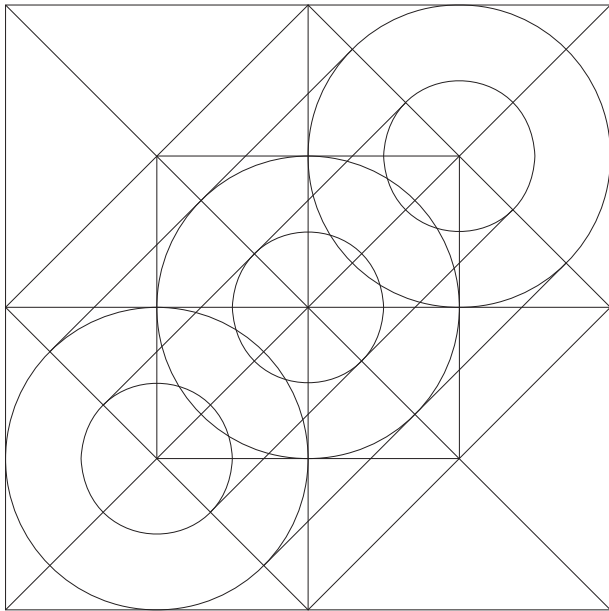
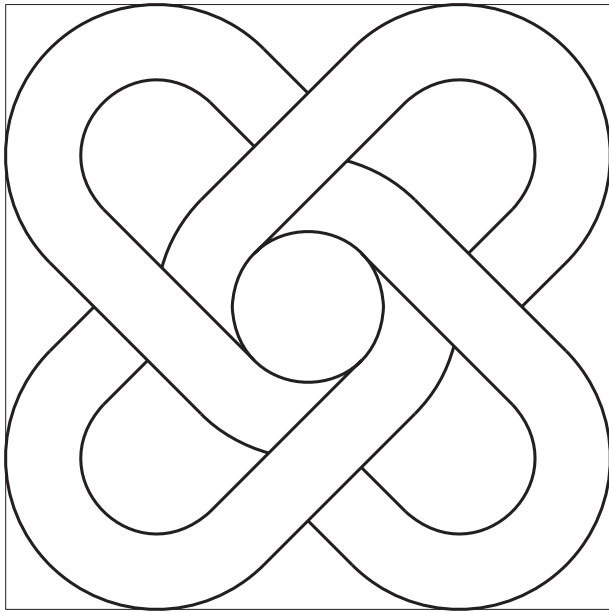
01a

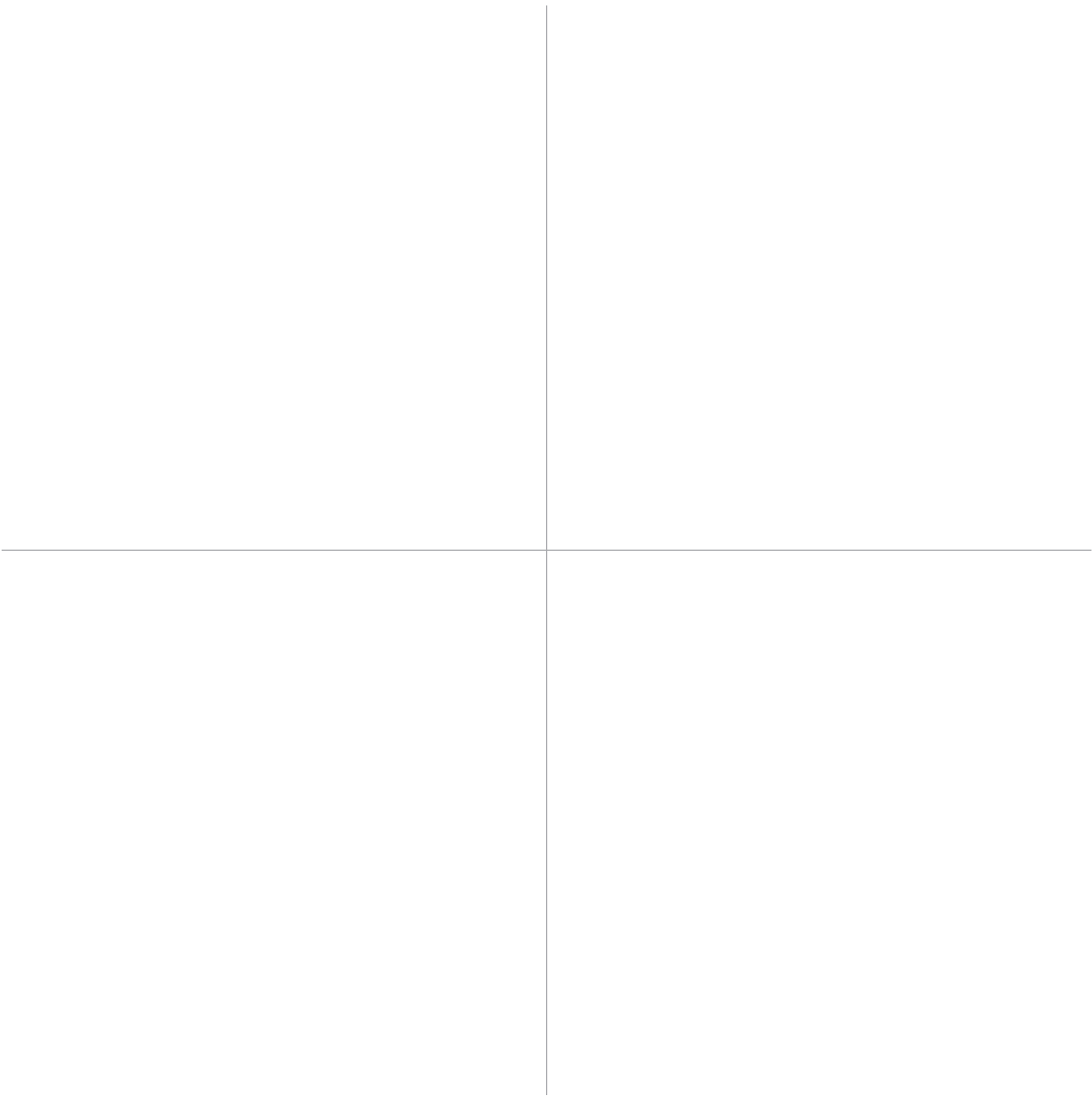
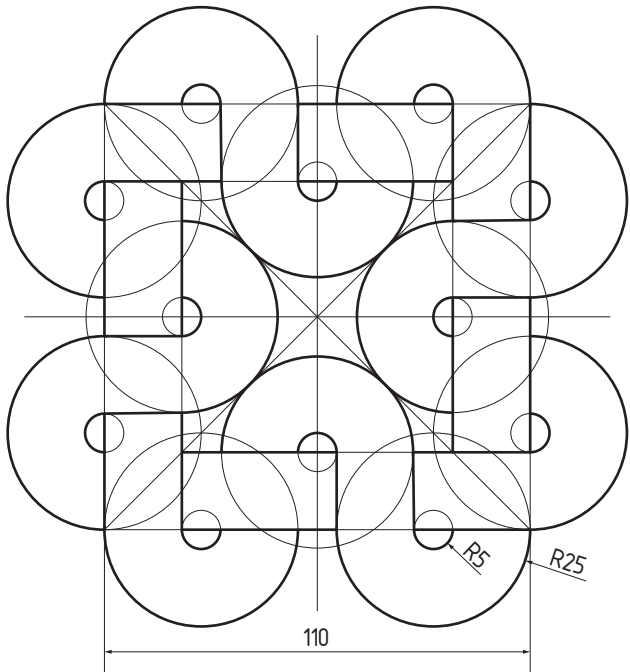
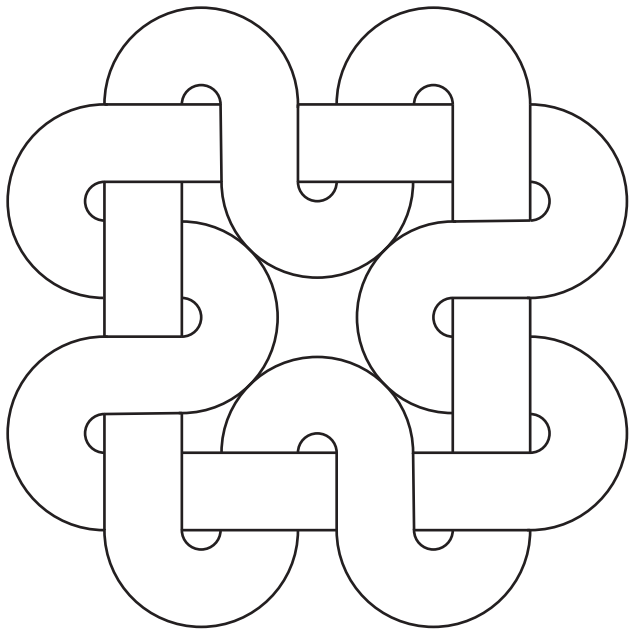
GEOMETRIC TRACING. PARALLEL & PERPENDICULAR LINES

Name and surname:

Group:





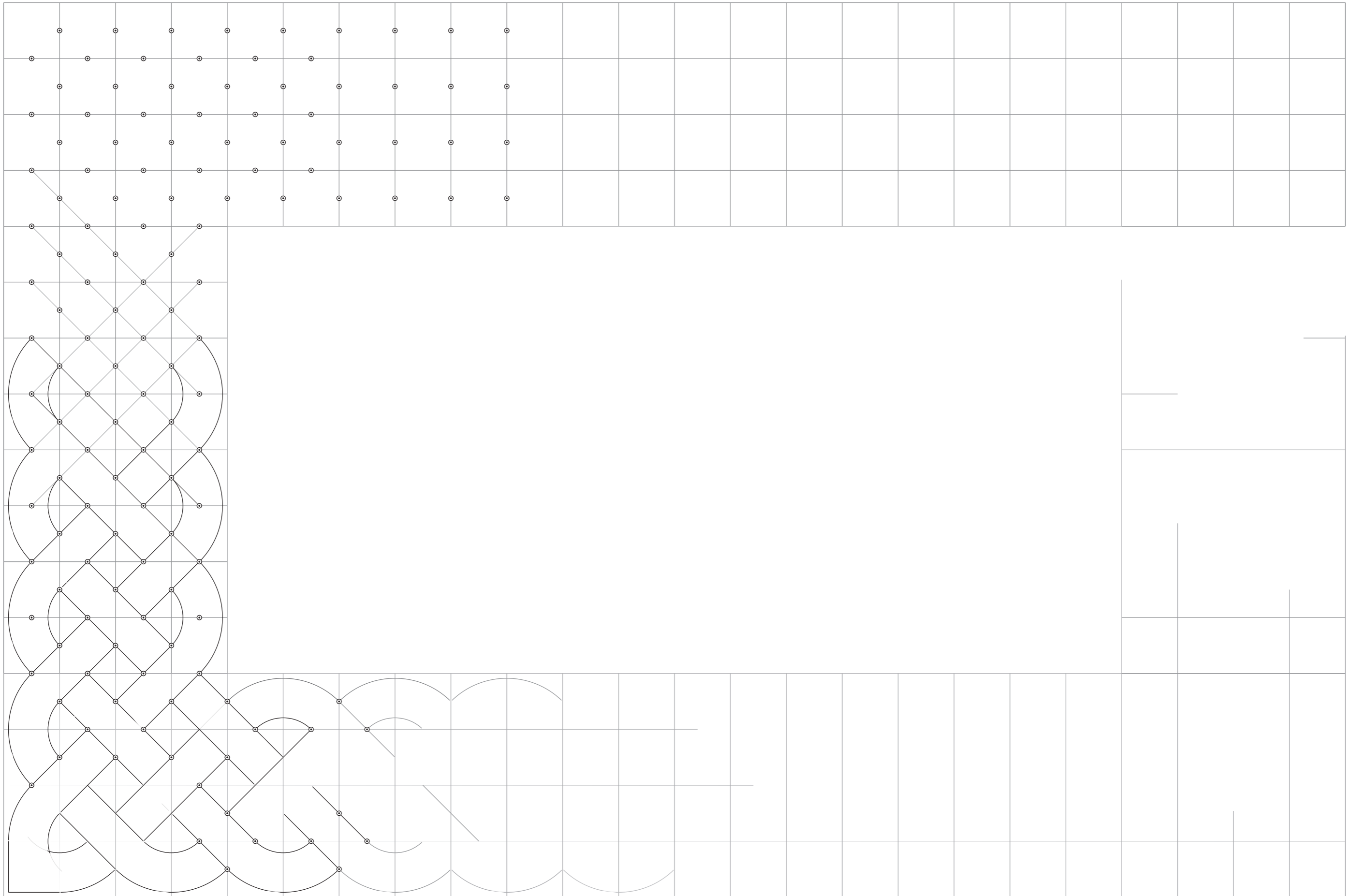


01d

GEOMETRIC TRACING. PARALLEL, PERPENDICULAR LINES & CURVES.

Name y Surname:

Group:



01e

GEOMETRIC TRACING. CELTIC DECORATION

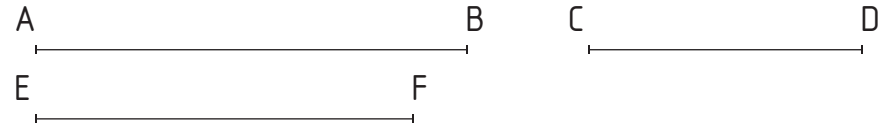
Name and Surname:

Group:

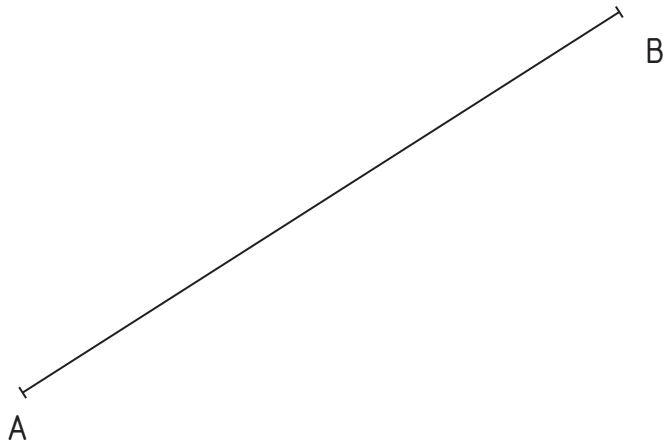
1.- On line r , indicate the resulting segment of the segment subtraction $AB - CD$.



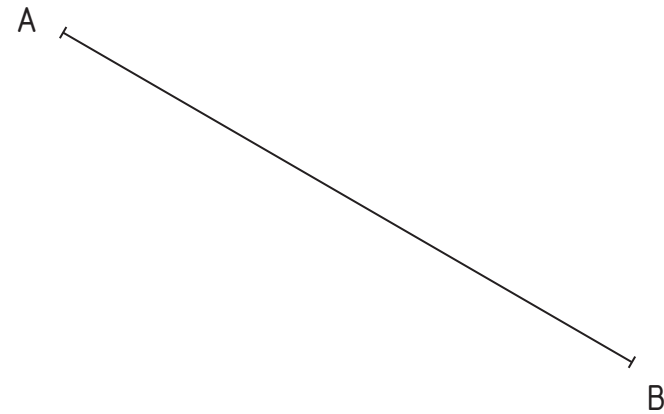
2.- On line r , indicate the resulting segment of the following operation: $AB + CD - EF$.



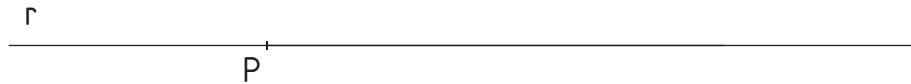
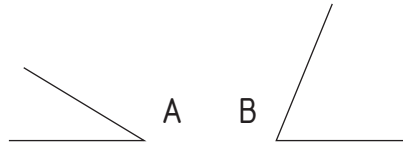
3.- Draw the segment bisection of AB segment.



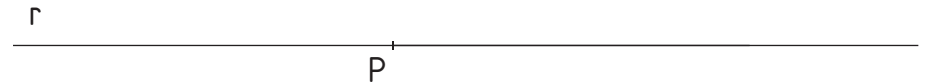
4.- Divide AB segment in 5 equal parts using Thales' Theorem.



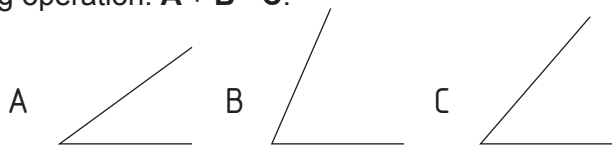
1.- Taking **P** dot on **r** as the vertex, indicate the resulting angle for the angle addition: **A + B**.



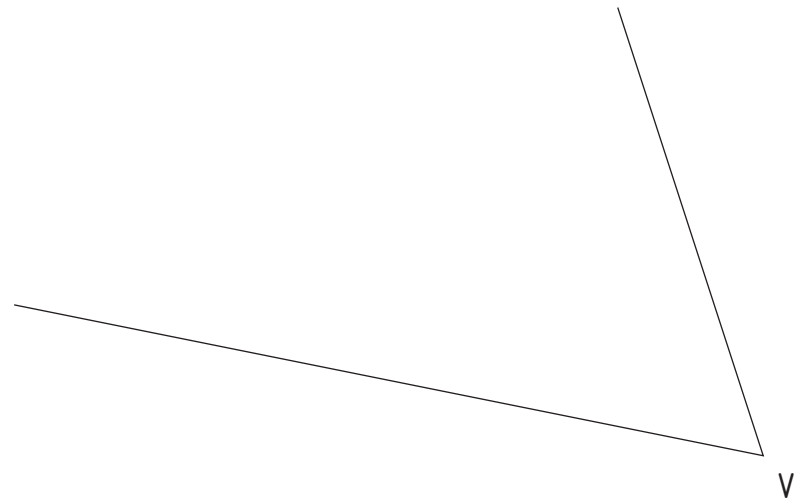
2.- Taking **P** dot on **r** as the vertex, indicate the resulting angle for the angle subtraction: **A - B**.



3.- Taking **P** dot on **r** as the vertex, indicate the resulting angle for the following operation: **A + B - C**.



4.- Draw the angle bisector of the given angle.



1.- Using compass draw 60° and 90° angles.



2.- Build 75° and 150° angles, you must only use compass to draw them.

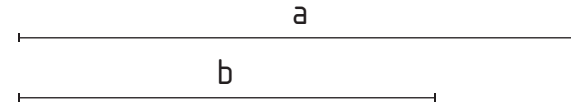


3.- Using only your compass build the $37^\circ 30'$ and $67^\circ 30'$ angles.

4.- Find $82^\circ 30'$ angle, you must only use compass in its construction.

1.- Draw the equilateral triangle with a side length of 62 mm.

2.- Draw the isosceles triangle which equal sides have the length of segment **b**, and different side is equal to segment **a**.



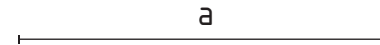
3.- Draw a triangle with given side **c**, and angles **A** and **B**.

$$c = 63 \text{ mm.}$$

$$A = 45^\circ$$

$$B = 75^\circ$$

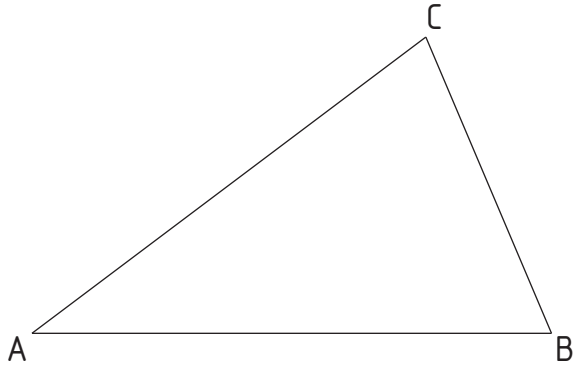
4.- Draw the triangle with given sides **a** and **c**, and angle **B**.



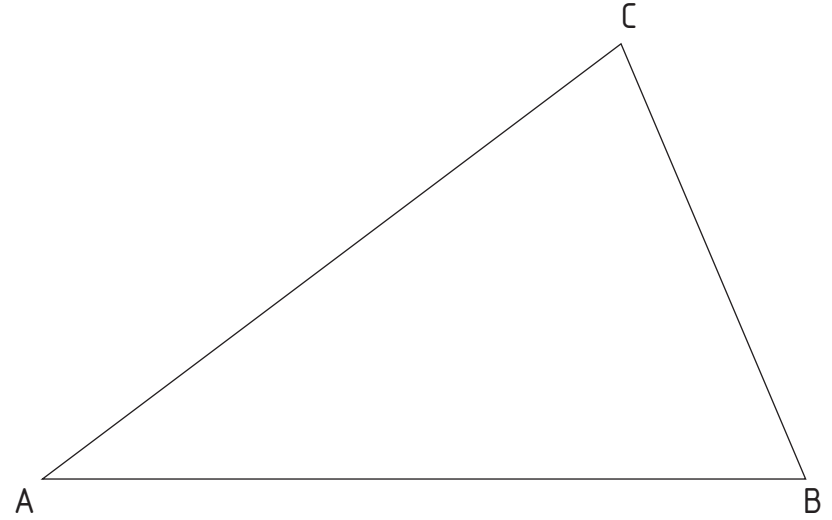
$$c = 60 \text{ mm.}$$

$$B = 120^\circ$$

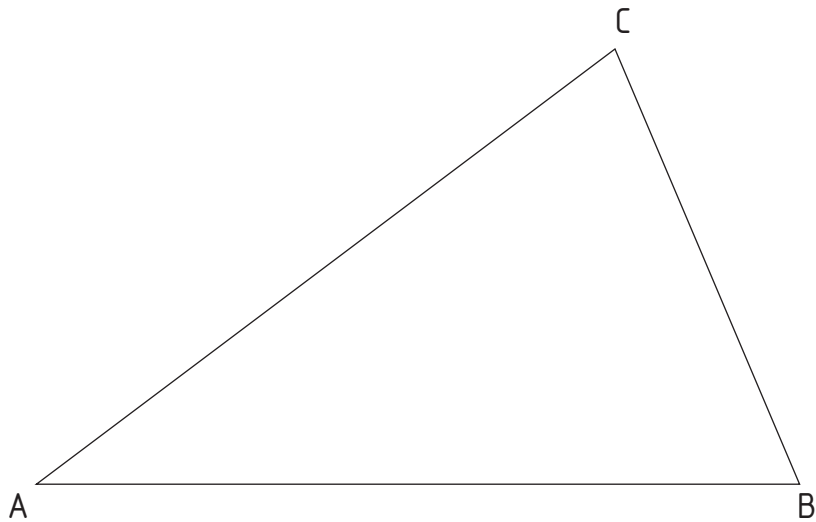
1.- Find **ABC** triangle **circumcenter** and draw the circumscribed circumference.



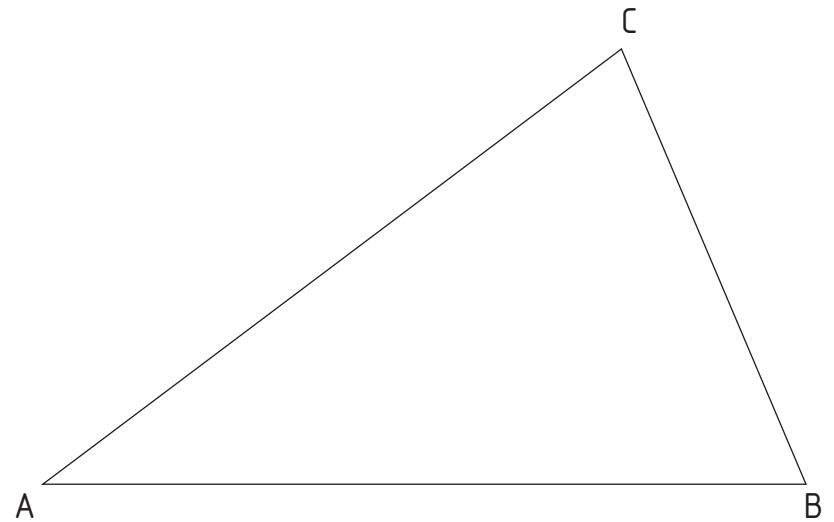
2.- Find **ABC** triangle **incenter** and draw the inscribed circumference.



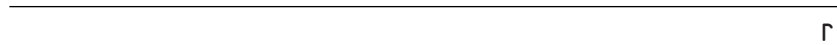
3.- Find **ABC** triangle **centroid**.



4.- Find **ABC** triangle **orthocenter**.



1.- Draw the **square** with side equal to **50 mm**.



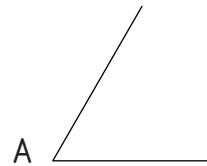
2.- Draw the **rectangle** with given side **AB** and diagonal **AC= 94 mm**.



3.- Draw the **rhombus** with given side **AB** and angle **A = 60°**. **AB** side must be on line **r**.



4.- Draw the **rhomboid** with given sides **AB = 70 mm.**, **AD = 50 mm.** and **A** angle. **AB** side must be on line **r**.



1.- Draw a **Square** knowing diagonal **AC**.

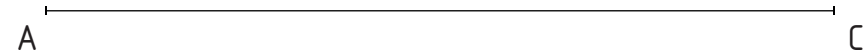


2.- Draw a **rectangle** with given diagonal **AC** and side **AD = 40 mm**.

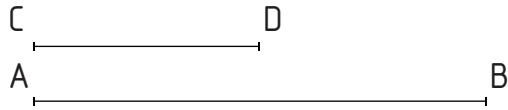


3.- Draw a Rhombus with given diagonals **AC = 70 mm.** and **BD = 50 mm.**

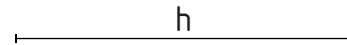
4.- Draw the Rhomboid with given sides **AB = 70 mm., AD = 50 mm.** and diagonal **AC.**



1.- Build the **isosceles trapezium** with given bases **AB** y **CD** and height **h = 40 mm.**



2.- Draw the **rectangle trapezium** with given bases **AB = 60 mm.**, **CD = 30 mm.** and height **h.**



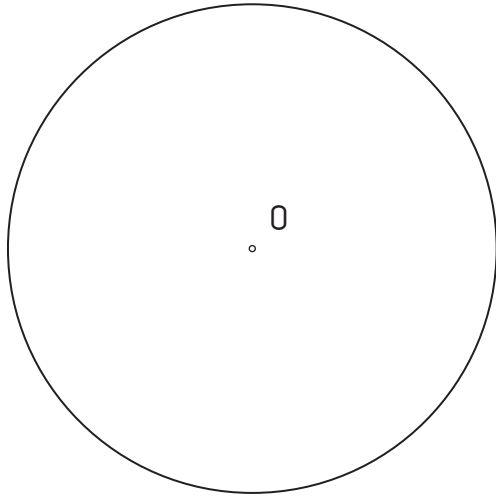
3.- Trace the **scalene trapezium** with given base **AB**, height **h = 35 mm.** and both diagonals **AC = 60 mm.** and **BD = 50 mm.**



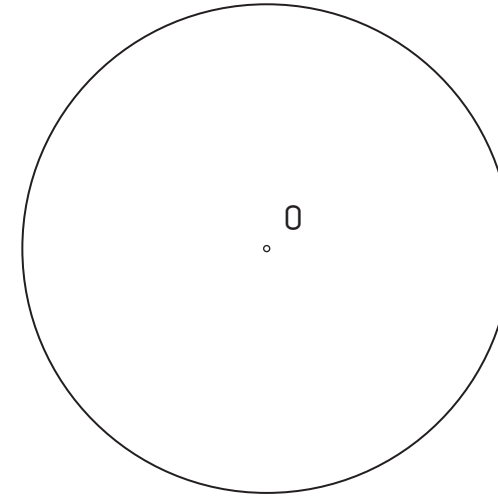
4.- Draw the **trapezoid** with given sides **AB**, **BC = 25 mm.**, **CD = 45 mm.** and **AD = 50 mm.** and diagonal **AC = 70 mm.**



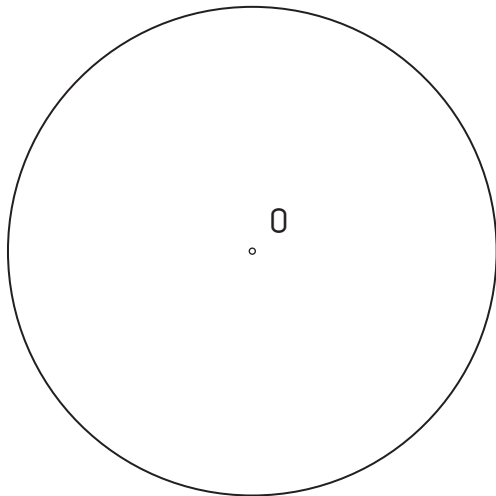
1.- Draw the **triangle** and the regular **hexagon** polygon in the given circumference.



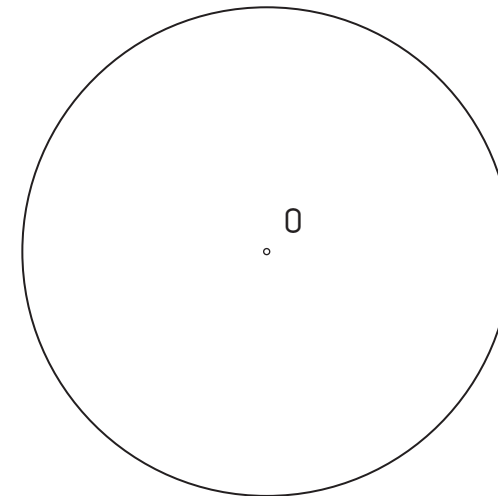
2.- Draw the inscript **square** and regular **octagon** in the given circumference.



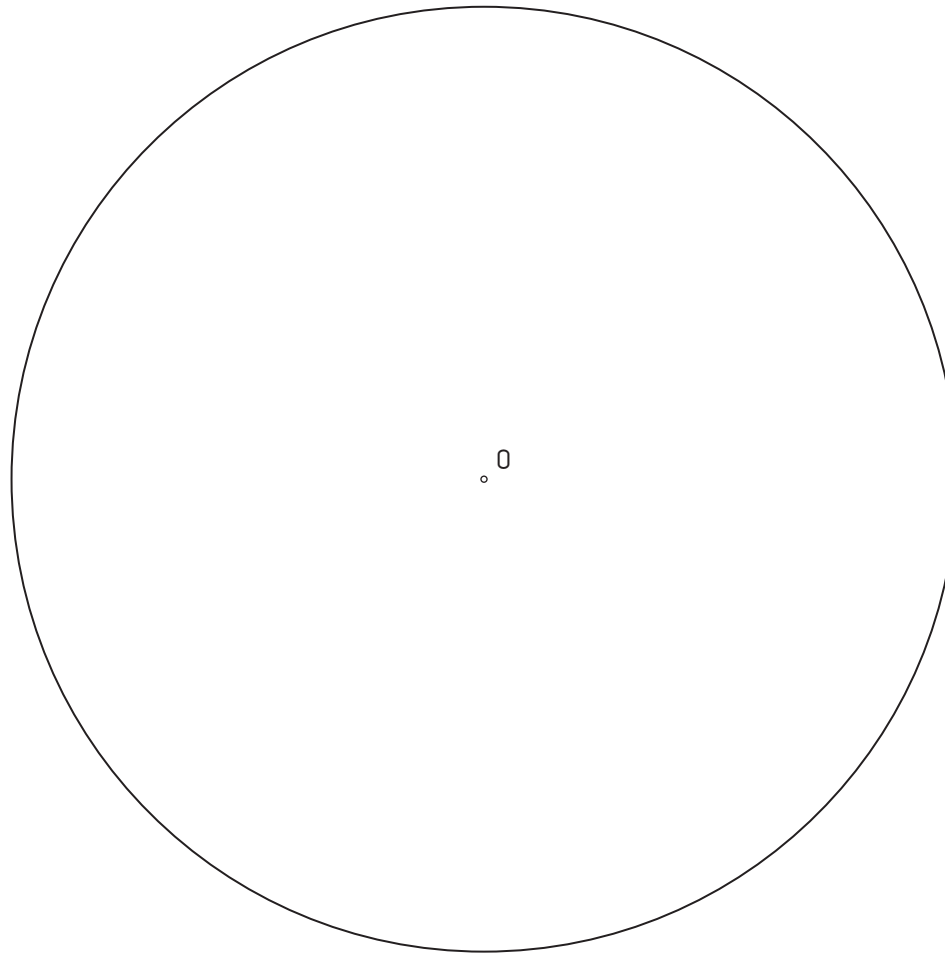
3.- Draw the inscript regular **pentagon** and **decagon** in the given circumference.



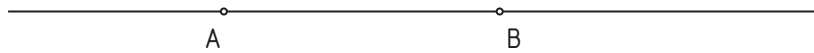
4.- Build the regular **heptagon** polygon in the given circumference.



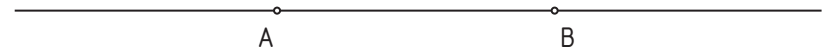
1.- Divide given circumference in **13 equal parts** using the **General Method to Divide a Circumference**.



1.- Build the regular **pentagon** knowing **AB** side.



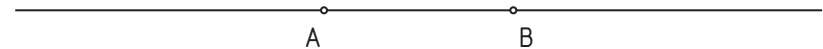
2.- Draw the regular **pentagon** knowing **AB** side.



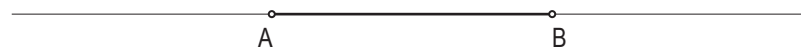
3.- Build the regular **heptagon** with given side **AB**.



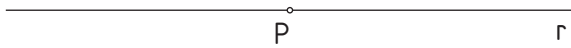
4.- With given **AB** side draw the regular **octagon**.



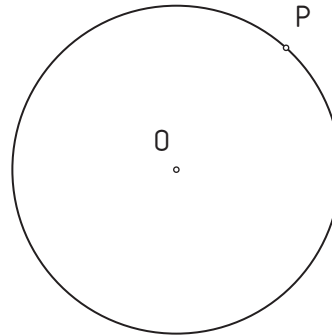
1.- Draw the 6, 9 and 12 sides polygons using the **General Method to build regular polygons knowing side.**



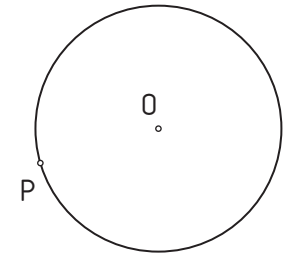
1.- Draw a circumference tangent to line **r** on dot **P** with a radius of **25 mm**.



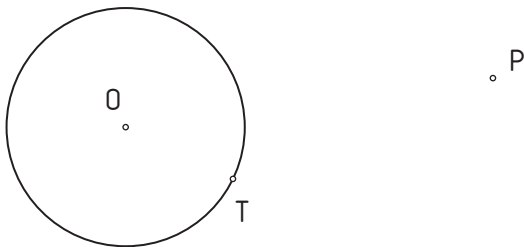
2.- Trace a tangent line to circumference **O** on **P** dot.



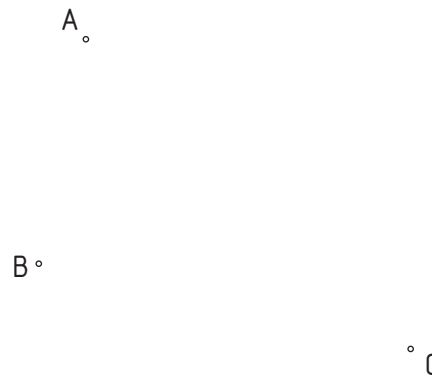
3.- Trace the circumference with radius **25 mm**. external tangent to circumference **O** on **P** dot.



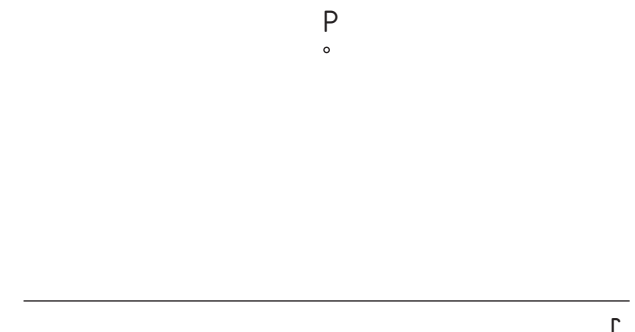
4.- Find the circumference tangent to given circumference **O** on **T** dot, that go through dot **P**.



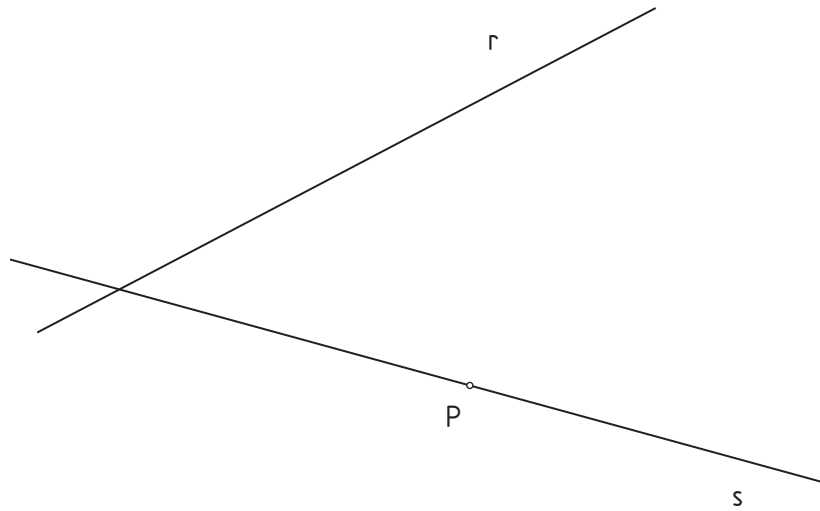
5.- Draw the circumference that passes through **A**, **B** and **C** dots.



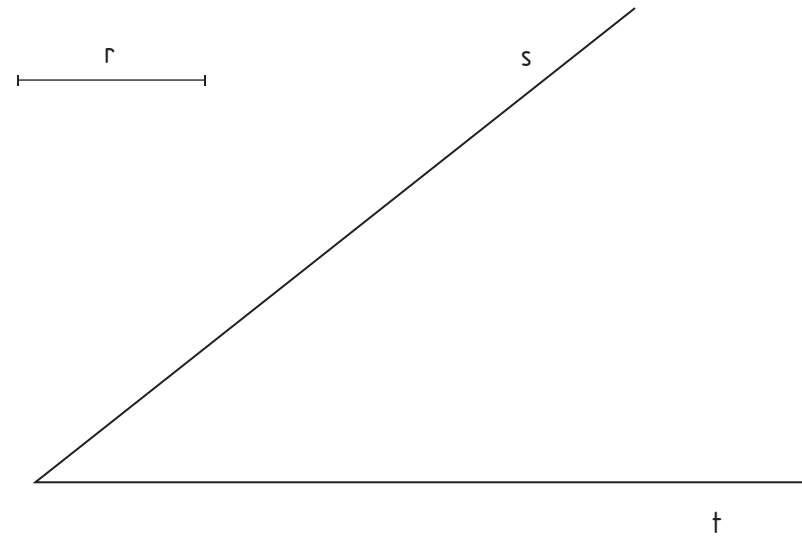
6.- Find the circumferences with radius **20 mm**. tangent to line **r** that go through **P** dot.



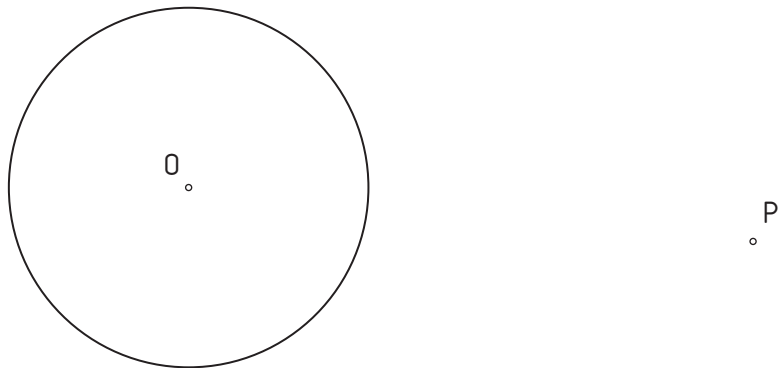
1.- Trace the tangent circumference to **r** and **s** lines. **P** is one of the tangency dots.



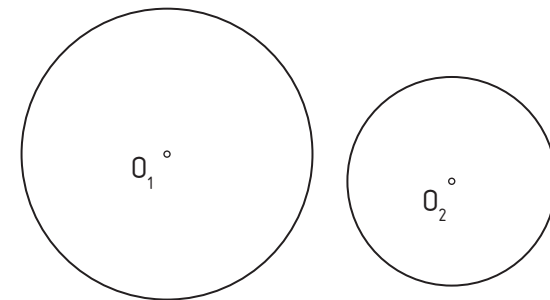
2.- Draw the circumference with **radius r**, tangent to given lines **s** and **t**.



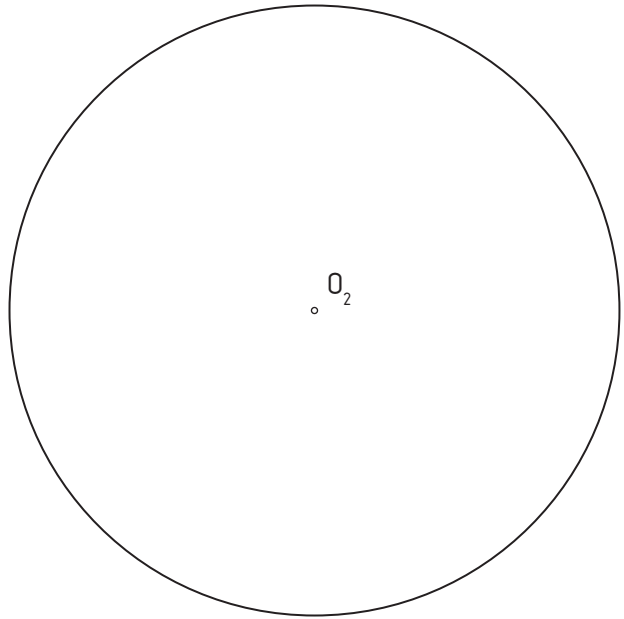
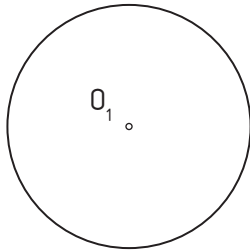
3.- Trace two tangent lines to circumference **O** from outer point **P**.



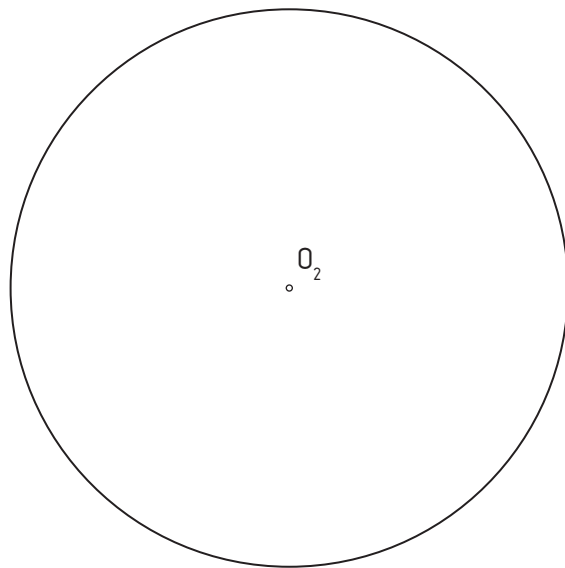
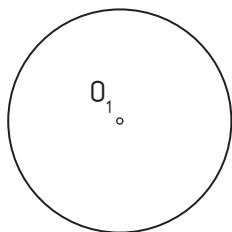
4.- Draw a circumference with radius **20 mm**, external tangent to given circumferences.



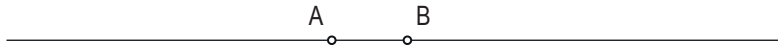
1.- Draw the outer tangent lines to the given circumferences.



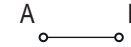
2.- Draw the inner tangent lines to the given circumferences.



1.- Draw the two center **spiral** with given centers **A** and **B**.

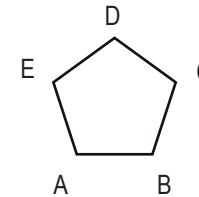


2.- Trace la **espiral de tres centros** dados dos de ellos: **A** y **B**.

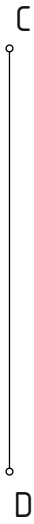


3.- Dibuja la **espiral** cuyo centro es un cuadrado de **10 mm.** de lado.

4.- Traza la **espiral de cinco centros** dados todos ellos.



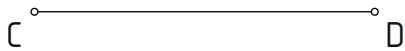
1.- Draw the **oval** with given **minor axis CD**.



2.- Find the **oval** knowing his major axis **AB**.



3.- Draw the **ovoid** knowing its **minor axis CD**.



4.- Trace the **ovoid** with given **major axis AB**.

