

Compass-drawn animals

Evaluation	--	-	==	+	++
Vocabulary					
Draw panda					
Create a diagram					
Draw 2 nd diagram					

Summary

This activity involves constructing a panda using primarily circles, based on the book *Animali compassati* by Daniele Nannini.

Such figures require the use of a compass. The drawings can be made on a blank A4 sheet of paper.

Vocabulary

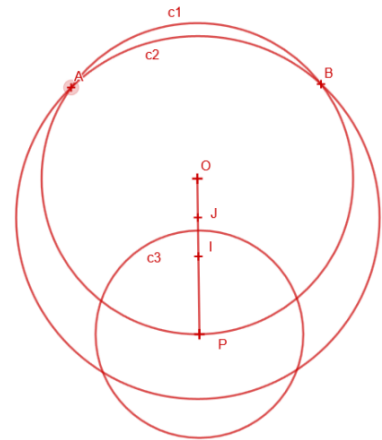
1. Read carefully the text hereafter without doing anything.
2. Note the words you don't know and find out their meaning on the web.
3. What kind of office supply you need for this activity ? Build the list in French then translate it in English.

My vocabulary			
French	English	French	English

Let's draw a panda

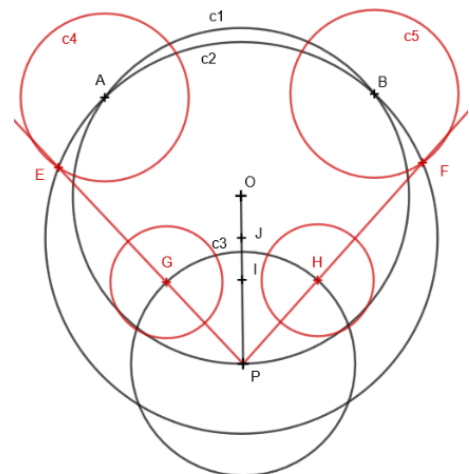
Step 1 -

- Take a blank A4 sheet lengthways ("portrait" mode).
- Place a point O approximately in the center of the sheet.
- Draw a line segment [OP] measuring 6 cm in length.
- Place point I, the midpoint of line segment [OP], and point J, the midpoint of line segment [OI].
- Draw circle C1 with center O, passing through P.
- Draw circle C2 with center J and radius 7 cm; it intersects circle C1 at two points, A and B.
- Draw circle C3 with center P and radius 4 cm.



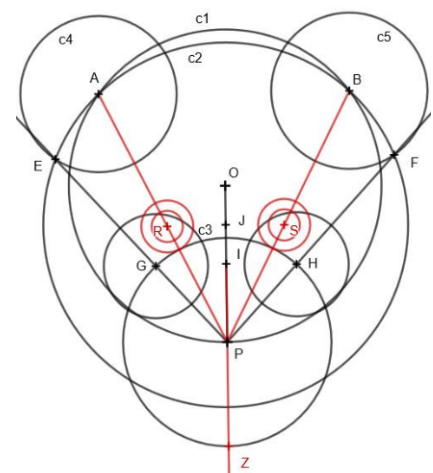
Step 2 -

- Draw circle C4 with center A and radius 3 cm.
- By observing the figure opposite, place point E, one of the two intersection points between circles C2 and C4.
- Draw circle C5 with center B and radius 3 cm.
- By observing the figure opposite, place point F, one of the two intersection points between circles C2 and C5.
- Draw rays [PE) and [PF).
- Place point G, the intersection point of [PE) and circle C3.
- Place point H, the intersection point of [PF) and circle C3.
- Draw the circle with center G and radius 2 cm.
- Draw the circle with center H and radius 2 cm.



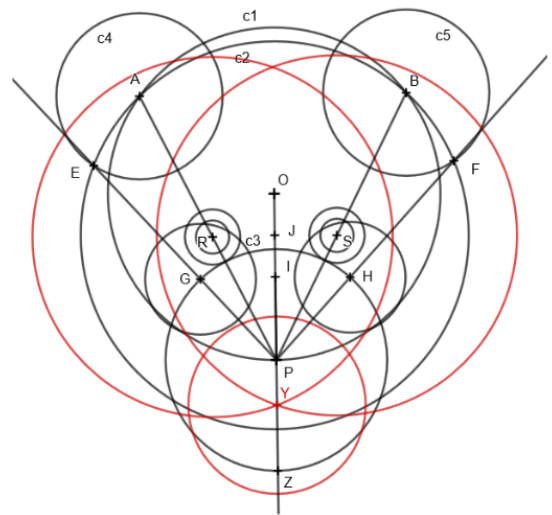
Step 3 -

- Draw line segments [AP] and [BP].
- Place point R on line segment [AP] such that $PR = 5$ cm.
- Place point S on line segment [BP] such that $PS = 5$ cm.
- For the left eye, draw two circles with center R: one with a radius of 1 cm and the other with a radius of 6 mm.
- For the right eye, draw two circles with center S: one with a radius of 1 cm and the other with a radius of 6 mm.
- Draw ray [IP); it intersects circle C3 at Z.



Step 4 -

- Draw the circle with center R and radius 6.5 cm.
- Draw the circle with center S and radius 6.5 cm.
- These circles intersect [PZ] at Y.
- Draw the circle with center Y and radius 3.2 cm.



Step 5 -

- Trace over the outlines with a black pencil following the model opposite (avoid felt-tip pens!).
- Be careful to choose the correct circles, especially for the ears and eyes (most common mistakes).
- Color the different areas using black pencil to complete your panda!



Information

You can find the artist's work on his personal page:

<https://www.danielenannini.it/portfolio/animali-compassati/> (in Italian or English).

A few templates are available here: <https://www.compasses-zoo.net/animaux-compasses/index.php>

Create your own diagram

By groups of two students,

1. Imagine and draw your diagram.
2. Write a program to realize it (step 1, step 2, ...)

My program :

Draw one of other students' diagram

1. Teacher will copy your program and will give it to another group
2. Students draw the diagram following other students' program