

Why use this resource?

This resource helps students to consolidate their understanding of the equation of the circle while also providing them with an accessible context with which complete an unstructured problem.

Preparation

Students will need to be familiar with the equation of a circle and also have access to graphing software such as [Desmos](#).

It might be helpful to have an image of the real Olympic rings to show students at the end of the lesson.

Possible approach

It is worth noting that students are not provided with an image of the Olympic rings to copy. This is intended to encourage them to think more carefully about the important features of the resultant image and to be more flexible with regards size and location of the rings on the coordinate grid. This does mean that students may need to be able to talk to each other about what they think the rings should look like and, if necessary, an image could be shared briefly to clarify the task. We would suggest that any image shown does not remain visible while students are working on constructing their own versions.

It can be difficult for pairs of students to work together at a computer so if possible all students could have access to a computer or tablet. Although students might be working on their own screens, it is important to encourage them to compare images and different approaches taken.

Key questions

- What will you do first?
- How can you make the problem easier for yourself?
- If you wanted to re-scale your image, what stays the same and what will change?

Possible support

Encourage students to sketch what they want on paper first.

Possible extension

Students could be invited to create their own images on [Desmos](#). They could be guided to create an image using particular graphs.