

## Teacher Notes

By allowing the students to work with partners, ideas can be shared and co-teaching can occur. Each student receives a worksheet for the activity and the TI-Nspire activity should be transferred onto each student's calculator.

The activity is broken down into parts in order to limit what aspect of a circle that the student can manipulate. This way they can focus on one aspect of the equation of a circle, instead of all aspects simultaneously. This was the reasoning for the three separate dynamic graphs.

Students are never given the equations, because the goal of the activity is to *discover* the general equations for circles. Also, students are not given answers to their practice problems, because they can be checked with the dynamic graphs.

At the end of the activity, I suggest having two sets of partners combine in order to share what they discovered were the two equations of a circle (depending on the center) and amend them if necessary. I would do this one more time combining two groups of four in order to achieve the same outcome.