



# *Writing Equations of* **CONIC SECTIONS**

## **TASK CARD REVIEW**

*Created by:* **ALL THINGS ALGEBRA®**

# WRITING EQUATIONS OF CONICS

## *task card review*

**Objective:** To practice writing equations of conic sections. Students will use various key features of circles, ellipses, hyperbolas, and parabolas. For circles, students are given: a graph, center/radius, center/point on a circle, and two points on a circle. For ellipses, students are given: a graph, vertices/covertices, vertices/foci, and foci/covertices. For hyperbolas, students are given: a graph, vertices/covertices, vertices/foci, and foci/covertices. For parabolas, students are given: a graph, vertex/focus, vertex/directrix, and focus/directrix.

### Directions:

1) Print, cut, and laminate the 32 task cards. Also, copy enough recording worksheets for each student. These are the ways I have run this activity:

- Place cards at each station and have students move in groups of 3-4 from station to station after approximately 4 minutes. (This way you only have to copy one set of cards.)
- Students work in pairs and are given a card set. They work together to answer the cards. You will need to print, cut, and laminate many sets. I typically prefer this because it leads to more one-on-one discussion.

2) They may check their answers by scanning the QR code on the card. A mobile device is required with a QR scanner app. An internet connection is not required to scan the code. It's very simple to set up, feel free to email me if you have any questions!

**Includes student worksheet, 32 task cards, and answer key!**

**Task Card 1:** Given the graph, write the equation of a circle in standard form.

**Task Card 12:** Write the equation of an ellipse in standard form with the given characteristics:  
Vertices: (6, 2) and (6, -8)  
Co-Vertices: (7, -3) and (5, -3)

**Task Card 24:** Write the equation of a hyperbola in standard form with the given characteristics:  
Co-Vertices: (-4, 14) and (-4, -10)  
Foci: (9, 2) and (-17, 2)

**Task Card 31:** Write the equation of a parabola in standard form with the given characteristics:  
Focus: (9, 5)  
Directrix:  $x = 3$

**Student Worksheet:** Conic Sections: Writing Equations task card review. Includes fields for Name, Date, and Per, and 32 numbered boxes for answers.