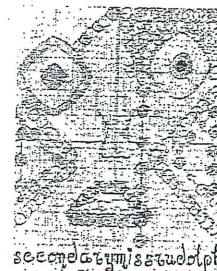
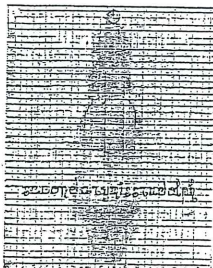
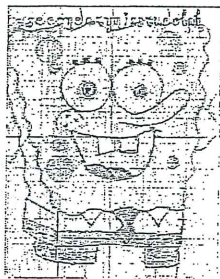


Name(s): _____



Art with Conic Sections

On a piece of graph paper, you must create a picture using circles, parabolas, and lines. You MUST use at least 10 circles, 8 parabolas and 10 lines in your picture. On another document you must provide a table with the required information.

Project Requirements:

- Sketch the drawing of what you wish to create using equations on a sheet of plain white paper.
- The project must contain a minimum of 28 equations made up of at least 10 circles, 8 parabolas (4-right/left) (4-up/down), and 10 linear equations. Vertical and Horizontal lines will not count towards 10 linear equations needed. All equations need to be listed in the table provided. Five of your circles should have the standard form of the circle and five of your circles should have the general form of the circle.
- A rough draft of your picture on graph paper. This copy should include the number (refer to the table) of each corresponding equation pointing to the specific part it is representing.

Here is an example of what your table should look like:

Type of conic	Number of Conic	What part of the picture the equation represents	Standard form of the conic	Essential information
Ex. Circle	1	Right eye	$(x - 3)^2 + (y - 4)^2 = 9$	Center: (3,4) radius: 3

Essential information

- Circles: center, radius
- Parabolas: vertex, focus, directrix, p
- Linear: slope, y-intercept

Name(s): _____

Art Project Table

Type of Conic	Number of Conic	What part of the picture the equation represents	Standard form of the circle	Essential information
Circle	1			Center: Radius:
Circle	2			Center: Radius:
Circle	3			Center: Radius:
Circle	4			Center: Radius:
Circle	5			Center: Radius:
Type of Conic	Number of Conic	What part of the picture the equation represents	General form of the circle	Essential information
Circle	6			Center: Radius:
Circle	7			Center: Radius:
Circle	8			Center: Radius:
Circle	9			Center: Radius:
Circle	10			Center: Radius:
Type of Conic	Number of Conic	What part of the picture the equation represents	Standard form of the parabola	Essential information
Parabola Opens right/left	11			Vertex: Focus: Directrix: p:
Parabola Opens right/left	12			Vertex: Focus: Directrix: p:
Parabola Opens right/left	13			Vertex: Focus: Directrix: p:

Parabola Opens right/left	14			Vertex: Focus: Directrix: p:
Parabola Opens up/down	15			Vertex: Focus: Directrix: p:
Parabola Opens up/down	16			Vertex: Focus: Directrix: p:
Parabola Opens up/down	17			Vertex: Focus: Directrix: p:
Parabola Opens up/down	18			Vertex: Focus: Directrix: p:
Type of Conic	Number of Conic	What part of the picture the equation represents	Standard Form for a linear equation ($y = mx + b$)	Essential information
Line	19			Slope: y- intercept:
Line	20			Slope: y- intercept:
Line	21			Slope: y- intercept:
Line	22			Slope: y- intercept:
Line	23			Slope: y- intercept:
Line	24			Slope: y- intercept:
Line	25			Slope: y- intercept:
Line	26			Slope: y- intercept:
Line	27			Slope: y- intercept:
Line	28			Slope: y- intercept:

Name: _____ Period _____

**CCGPS Analytic Geometry
Art with Conics Project Rubric**

	OUTSTANDING	ACCOMPLISHED	NEEDS IMPROVEMENT	INADEQUATE
ORIGINAL SKETCH Due: May 11th	The original drawing is creative and shows all required aspects. 5 POINTS	The original drawing is creative, but lacks some of the required aspects. 4 POINTS	The original drawing lacks any creativity and only includes some of the required aspects. 3 POINTS	The original drawing lacks any creativity and does not show reasonable functions. 2 POINTS
TABLE Due: May 14th	The table is accurate. All equations and essential information are correct. 50 POINTS	The table is accurate. There are few mistakes with the equations and essential information. 35 POINTS	The table is missing some information, but most of the equations and essential information is incorrect. 20 POINTS	The table is not complete or the information provided is incorrect. 5 POINTS
ROUGH DRAFT OF SKETCH Due: May 18th	The rough draft is properly labeled and correctly corresponds with the table. 10 POINTS	The rough draft is labeled, but has some errors in corresponding with the table. 7 POINTS	The rough draft is labeled, but does not correspond with the table. 4 POINTS	The rough draft is not labeled, and does not properly correspond with the table. 1 POINT
FINAL DRAWING Due: May 22nd	The final drawing accurately includes all functions listed in the table. The lines are drawn neatly using compass and ruler. 25 POINTS	The final drawing includes all functions listed in the table, with some mistakes. The lines are drawn neatly using compass and ruler. 20 POINTS	The final drawing does not include all the functions listed in the table or has multiple errors. The lines are drawn neatly. 10 POINTS	The final drawing does not include all the functions listed in the table and has multiple errors. The lines are not neatly drawn. 5 POINTS
CREATIVITY	The drawing is creative and colorful. 10 POINTS	The drawing is creative, but lacks color. 7 POINTS	The drawing is not creative or has no color. 4 POINTS	The drawing lacks creativity and has no color. 1 POINT
STUDENT EVALUATION	75 to 100% engaged with your group. 10 POINTS	50 to 75% engaged with your group. 7 POINTS	25 to 50% engaged with your group. 4 POINTS	0 to 25% engaged with your group. 1 POINT
TEACHER EVALUATION	75 to 100% engaged with your group. 10 POINTS	50 to 75% engaged with your group. 7 POINTS	25 to 50% engaged with your group. 4 POINTS	0 to 25% engaged with your group. 1 POINT
TOTAL				_____/120

Art Project - Partner Evaluation

Name: _____

The purpose of this evaluation is for you to give me input from your perspective. Your evaluation will only be read by me, so please as honest as possible. Also, be fair when giving your evaluation and base it on the input of each member, including yourself, and not on how much you like/dislike that person.

Evaluation of Yourself

	1: Little to none	2: Very little	3: Somewhat	4: Completely
Participation by the member				
Amount of work completed				
Focused on your group only				
Total	_____/12			

Additional Comments:

Evaluation of your partner: _____

	1: Little to none	2: Very little	3: Somewhat	4: Completely
Participation by the member				
Amount of work completed				
Focused on your group only				
Total	_____/12			

Additional Comments:

