**Pre Calculus** 7.1-7.2 Quiz Review WS

Solve by completing the square

1.  2. 

3. Find the vertex, focus, axis of symmetry, and directrix for each parabola below. Graph and label all key information.

a.  b. 

4. Find the center, vertices, co-vertices, foci, and eccentricity for each ellipse below. Graph and label all the key information.

a.  b. 

5. Put the following equations into standard form and identify the conic.

a.  b. 

6. Find the equation of the parabola with a vertex at  and a focus at 

|  |  |
| --- | --- |
| 7. Find the equation of the parabola: | 8. A sound receiving dish used at outdoor sporting events is constructed in the shape of a paraboloid, with its focus 5 inches from the vertex. Determine the width of the dish if the depth is to be 24 inches.  9. The planet Mercury travels in an elliptical orbit around the sun that has eccentricity 0.206 and major axis of length 0.774 AU. Find the maximum and minimum distances between Mercury and the sun. |

10. Find an equation in standard form for the ellipse whose foci are and  and whose minor axis length is 14.

**Pre Calculus** 7.1-7.2 Quiz Review WS

Solve by completing the square

1.  2. 

3. Find the vertex, focus, axis of symmetry, and directrix for each parabola below. Graph and label all key information.

a.  b. 

4. Find the center, vertices, co-vertices, foci, and eccentricity for each ellipse below. Graph and label all the key information.

a.  b. 

5. Put the following equations into standard form and identify the conic.

a.  b. 

6. Find the equation of the parabola with a vertex at  and a focus at 

|  |  |
| --- | --- |
| 7. Find the equation of the parabola: | 8. A sound receiving dish used at outdoor sporting events is constructed in the shape of a paraboloid, with its focus 5 inches from the vertex. Determine the width of the dish if the depth is to be 24 inches.  9. The planet Mercury travels in an elliptical orbit around the sun that has eccentricity 0.206 and major axis of length 0.774 AU. Find the maximum and minimum distances between Mercury and the sun. |

10. Find an equation in standard form for the ellipse whose foci are and  and whose minor axis length is 14.