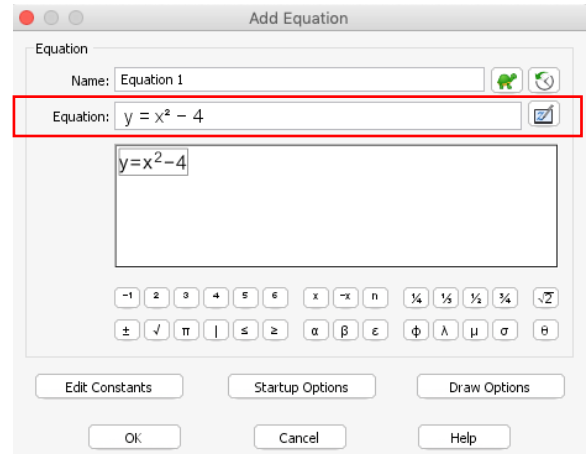


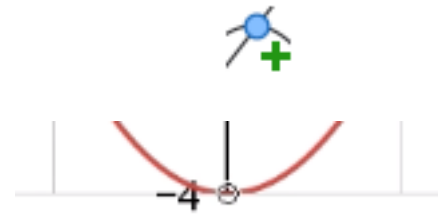
1. We want to be able to solve $f(x) = 0$ for Quadratics.

From the top toolbar select **Equation** and then select **Enter Equation**

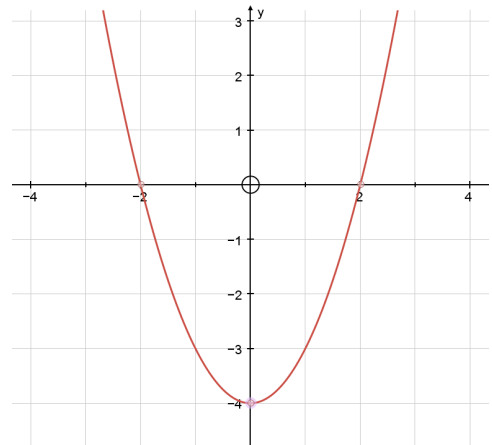
Enter $y = x^2 - 4$



2. Use the **Intersection Mode** and when the white circle appears click the point.



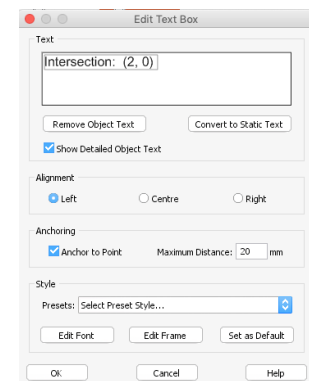
3. Select the points of intersection with the x-axis. These will be displayed.



4. To display the coordinates of each point.

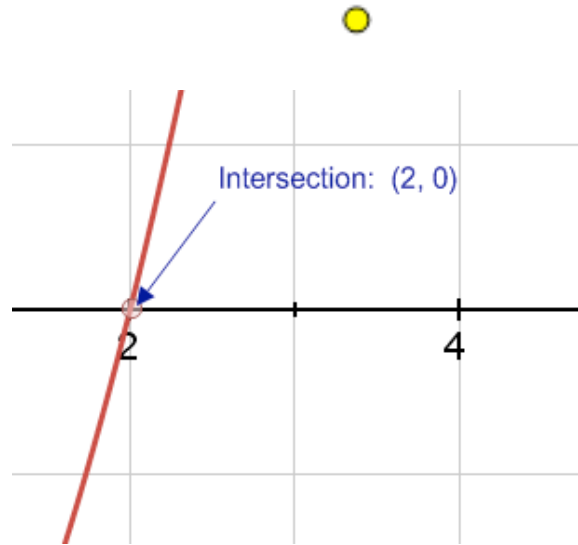
Click a point using the **Select Mode**

Click **Text Box**.

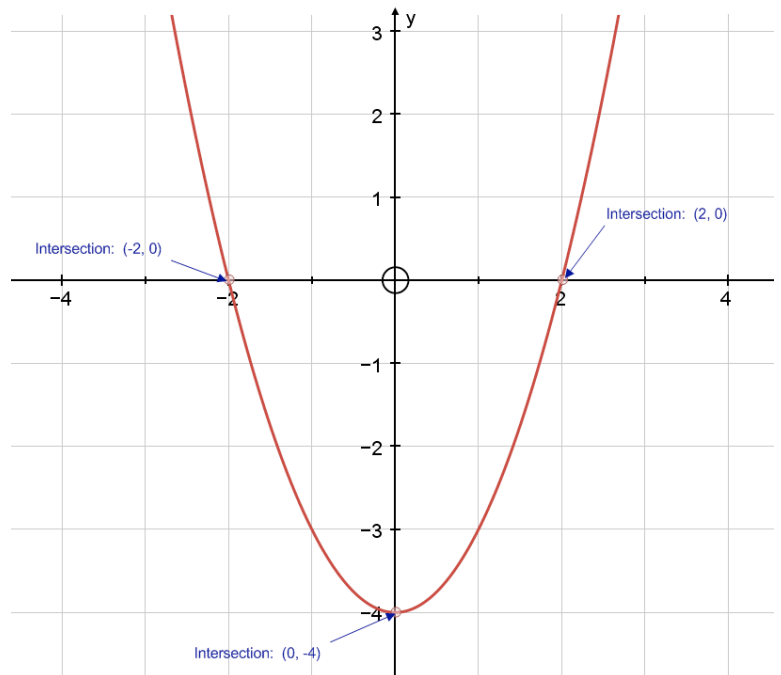




5. Use the **Select Mode** tool to draw an arrow from the **Text Box** to the point of intersection.



6. Repeat for all of the points of intersection.

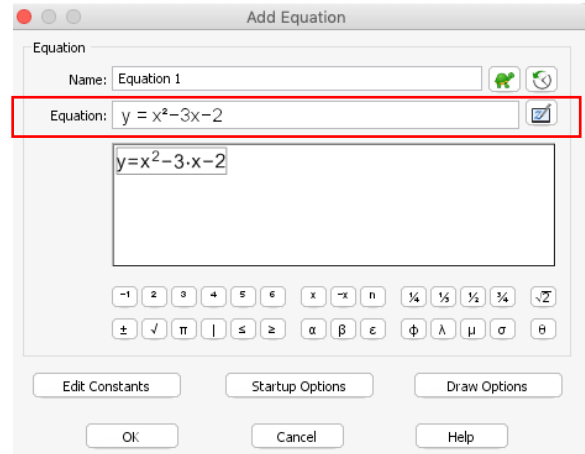


7. Create a New 2D Graph Page



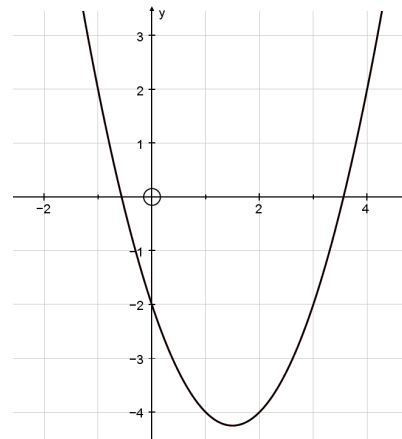
From the top toolbar select **Equation** and then select **Enter Equation**

Enter $y = x^2 - 3x - 2$



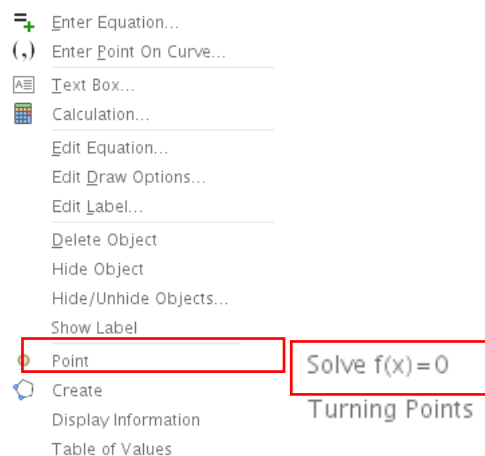
8. The graph $y = x^2 - 3x - 2$ will be drawn.

Using **Select Mode**, select the graph.



9. Right click and from **Point** option select **Turning Points**

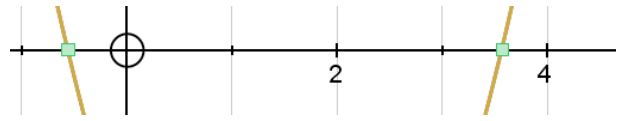
Right click and from **Point** option select **Solve $f(x) = 0$**



8. To display the solution $f(x) = 0$

Click a point using the **Select Mode**

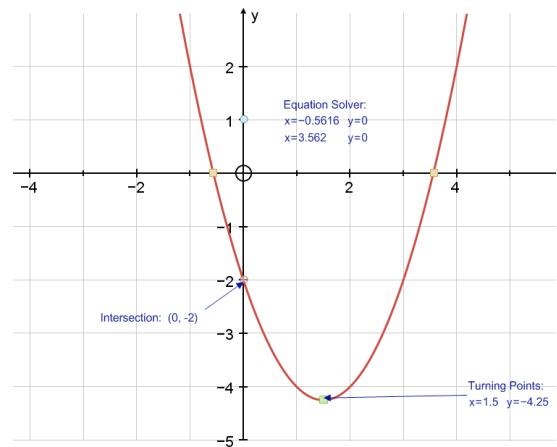
Click **Text Box**.



9. Using Point of Intersection



Create the y-intercept.



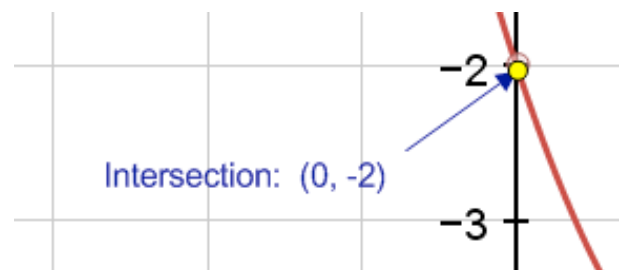
10. To display the coordinates of each point.

Click a point using the **Select Mode**

Click **Text Box**.



11. Use the **Select Mode** tool to draw arrows from the **Text Box** to the points.




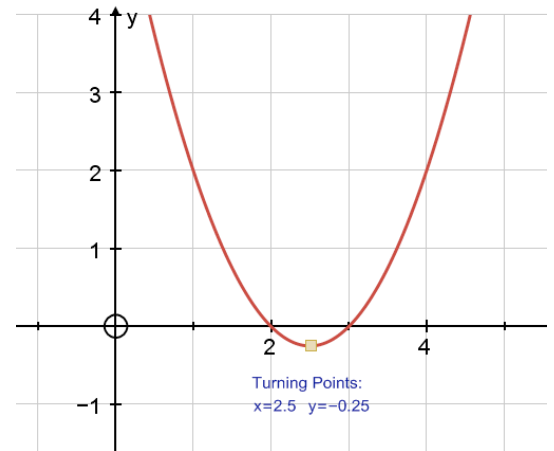


1. Create the graph $y = x^2 - 5x + 6$

Create the **Turning Point**

Add the **Text Box** label.


 Equation 1: $y = x^2 - 5x + 6$

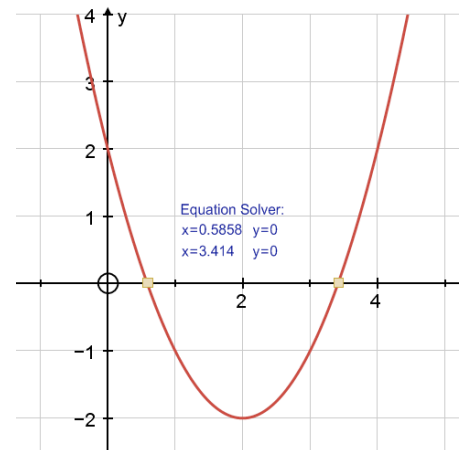


2. Create the graph $y = x^2 - 4x + 2$

Solve for **$f(x) = 0$**

Add the **Text Box** label


 Equation 1: $y = x^2 - 4x + 2$

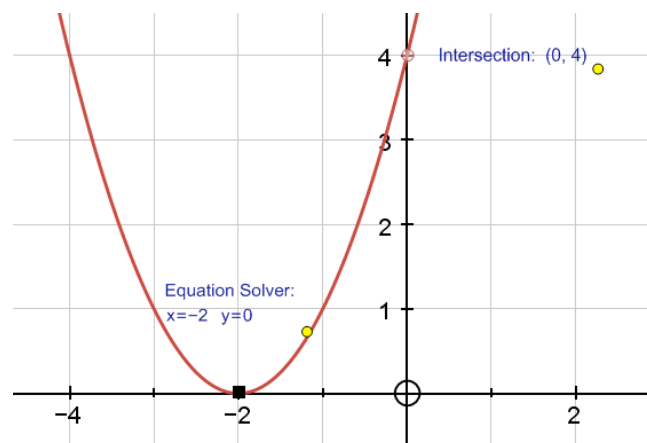


3. Create the graph $y = (x - a)^2 + b$

Create the y-intercept using **Intersection Mode**

Use the **Constant Controller** to adjust a and b to recreate the graph.

 Equation 1: $y = (x - a)^2 + b$



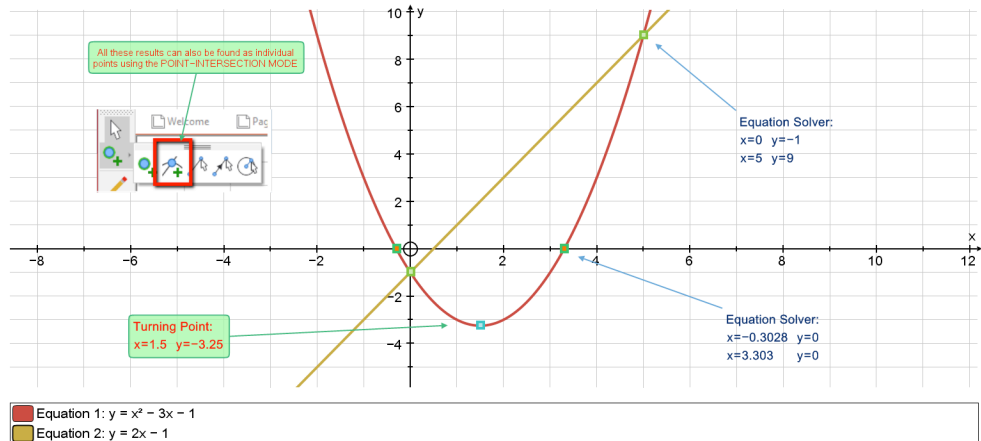
4. Create the graphs:

$$y = x^2 - 3x - 1$$

$$y = 2x - 1$$

Use Equation Solver to find the solutions.

Label the points.



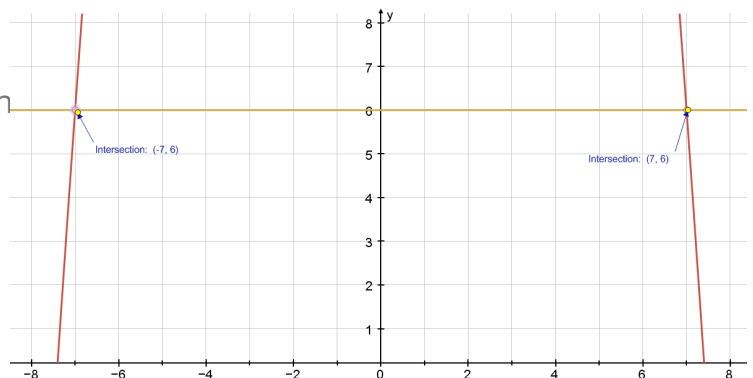
5. Create the graphs:

$$x^2 + y = 55$$

$$y = 6$$

Use **Solve Intersection** to find the point Intersection.

■ Equation 1: $x^2 + y = 55$
■ Equation 2: $y = 6$



6. Create the points:

(-3, 0), (2, 0) and (0, -6)
Create the **Quadratic (3pts)**

Create points:
(-10, 0) and (0, 10)
Create the line through the points

Use **Solve Intersection** to find the points of Intersection.

