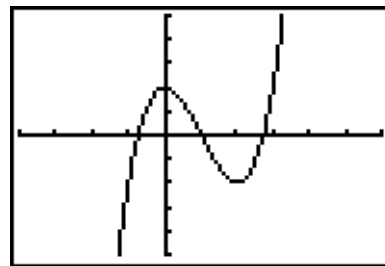


When graphing functions on your calculator it is usually a good idea to start with the default settings for the [Window] menu. Recall that this can be done quickly by using [Zoom] (6)

- 1) Graph  $y = x^3 - 3x^2 + 2$ . Adjust your [Window] settings to match the graph shown here. What are the settings? Hint: Consider counting the tic marks.

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl



- 2) Find a friendly window for  $y = x^3 - 30x^2 - 400x + 12000$ .

What are the window settings?

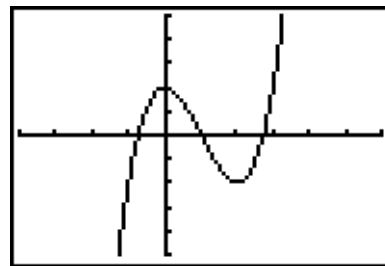
[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl

- 3) Find the intersection of  $y = 2x - 3$  and  $y = -x + 9$
- 4) Find both intersections of  $y = 0.04x^2 - 6$  and  $y = -0.2x + 6$
- 5) Find all intersection points for the graphs of  $y = 2x - 3$  and  $y = x^3 - 2x^2 - 3x + 4$
- 6) Find the coordinates for the local maximum and local minimum of  $y = x^3 + x^2 - 3x - 7$
- 7) Find the x-intercept for the graph in number 6
- 8) Use the "Maximum" feature of your calculator to find the vertex of the parabola  $y = -1.4x^2 + 9.6x + 1$
- 9) Solve for x and find all solutions accurate to  $\pm 0.001$ :  $-0.125x^2 - 0.5x + 12 = 0.125x^3 - 0.25x^2 - 6x$
- 10) Solve for x:  $3 - \frac{x(x-20)}{10} = x + 6$

When graphing functions on your calculator it is usually a good idea to start with the default settings for the [Window] menu. Recall that this can be done quickly by using [Zoom] (6)

- 1) Graph  $y = x^3 - 3x^2 + 2$ . Adjust your [Window] settings to match the graph shown here. What are the settings? Hint: Consider counting the tic marks.

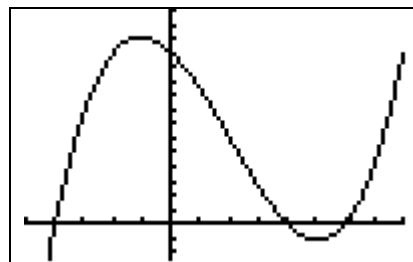
[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
<b>[-4, 6]</b>	<b>1</b>	<b>[-5, 5]</b>	<b>1</b>



- 2) Find a friendly window for  $y = x^3 - 30x^2 - 400x + 12000$ .

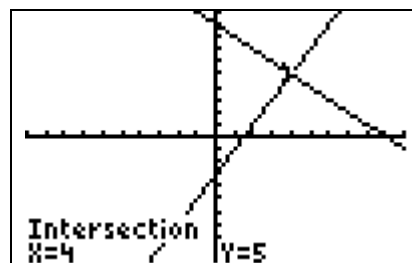
What are the window settings?

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
<b>[-25, 40]</b>	<b>5</b>	<b>[-2500, 15000]</b>	<b>1000</b>



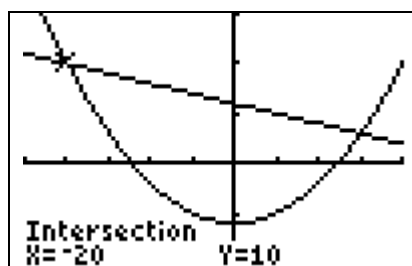
- 3) Find the intersection of  $y = 2x - 3$  and  $y = -x + 9$

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
<b>[-10, 10]</b>	<b>1</b>	<b>[-10, 10]</b>	<b>1</b>



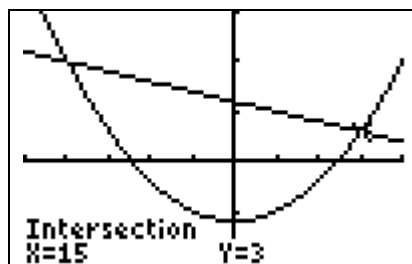
- 4a) Find both intersections of  $y = 0.04x^2 - 6$  and  $y = -0.2x + 6$

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
<b>[-25, 20]</b>	<b>5</b>	<b>[-10, 15]</b>	<b>5</b>



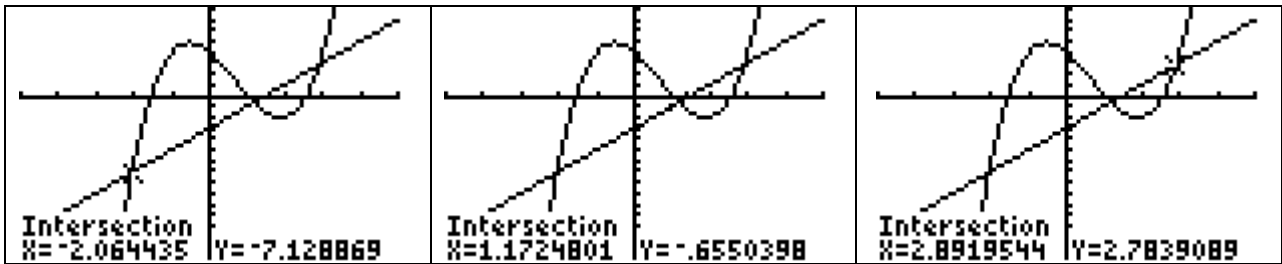
- 4b) Find both intersections of  $y = 0.04x^2 - 6$  and  $y = -0.2x + 6$

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
<b>[-25, 20]</b>	<b>5</b>	<b>[-10, 15]</b>	<b>5</b>



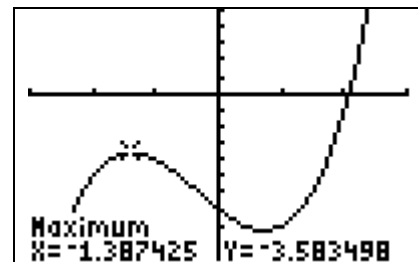
- 5) Find all intersection points for the graphs of  $y = 2x - 3$  and  $y = x^3 - 2x^2 - 3x + 4$

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
<b>[-5, 5]</b>	<b>1</b>	<b>[-15, 10]</b>	



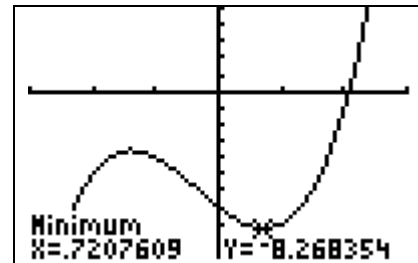
- 6a) Find the coordinates for the local maximum and local minimum of  $y = x^3 + x^2 - 3x - 7$

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
<b>[-3, 3]</b>	<b>1</b>	<b>[-10, 5]</b>	<b>1</b>



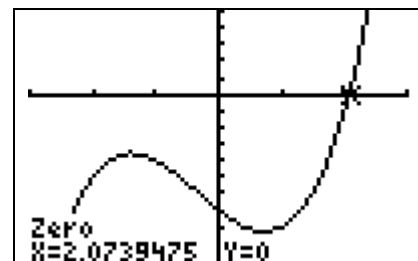
- 6b) Find the coordinates for the local maximum and local minimum of  $y = x^3 + x^2 - 3x - 7$

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
<b>[-3, 3]</b>	<b>1</b>	<b>[-10, 5]</b>	<b>1</b>



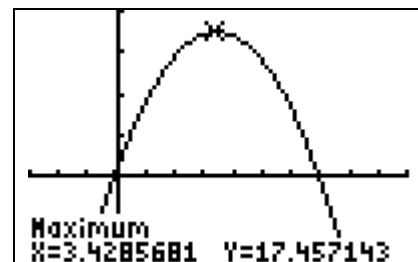
- 7) Find the x-intercept for the graph in number 6

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
<b>[-3, 3]</b>	<b>1</b>	<b>[-10, 5]</b>	<b>1</b>



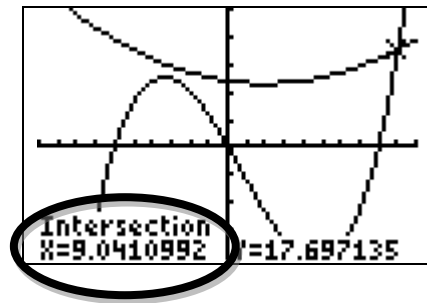
- 8) Use the "Maximum" feature of your calculator to find the vertex of the parabola  $y = -1.4x^2 + 9.6x + 1$

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
<b>[-3, 10]</b>	<b>1</b>	<b>[-10, 20]</b>	<b>5</b>



- 9) Solve for  $x$  and find all solutions accurate to  $\pm 0.001$ :  
 $0.125x^2 - 0.5x + 12 = 0.125x^3 - 0.25x^2 - 6x$ .  $x \approx 9.041$

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
$[-10, 10]$	1	$[-20, 25]$	5



- 10) Solve for  $x$ :  $3 - \frac{x(x - 20)}{10} = x + 6$ .  $x = \text{No Solution}$

[Xmin, Xmax]	Xscl	[Ymin, Ymax]	Yscl
$[-5, 10]$	1	$[-5, 15]$	1

