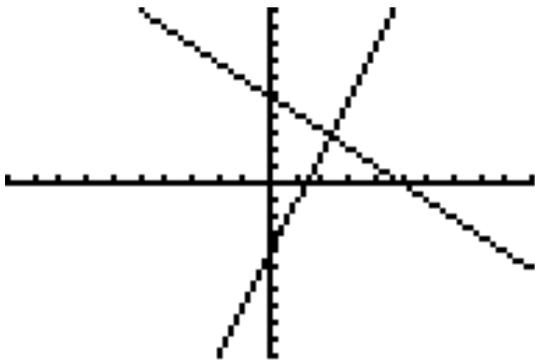# Finding an Intersection of
Two Functions using the TI-83/84

**Step 1** – Press Y=, and enter both equations.

Step 2 – Graph the functions. The intersection must show on the screen! (ZOOM, '6: ZStandard' is a good way to start.)


Step 3 – Press 2ND and then CALC (with the TRACE button). Select '5: intersect'.

Step 4 – At the 'First curve?' prompt, use the up and down arrows to select one function. Press the ENTER button.

Step 5 – At the 'Second curve?' prompt, use the up and down arrows to select the second function. Press the ENTER button. Note, if you are only graphing two equations, they will both be automatically selected during steps 4 and 5.

Y1=3X-4

First curve?
X=3.6170213   Y=6.8510638

Y2=-X+5

Second curve?
X=3.1914894   Y=1.8085106
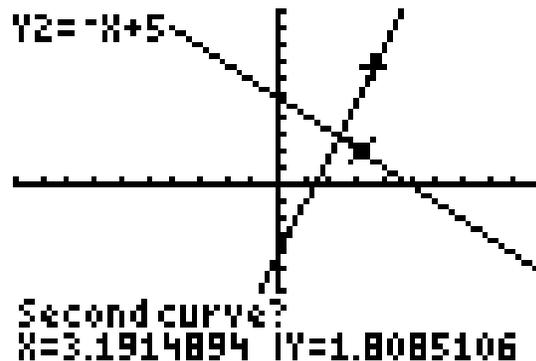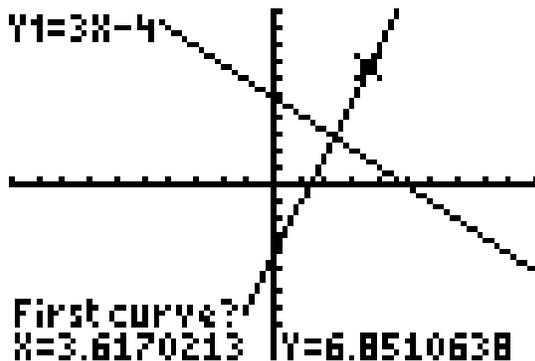
Step 6 – At the 'Guess?' prompt, use the left and right arrows to move the cursor near the intersection and push the ENTER button. The coordinates of the intersection will be at the bottom of the screen!
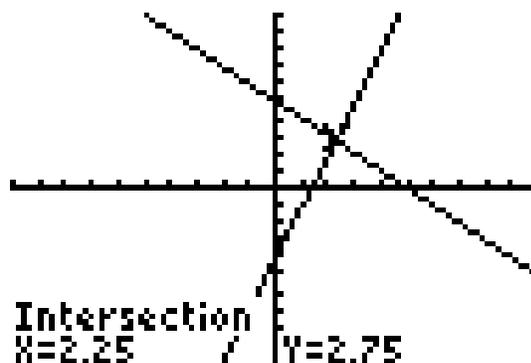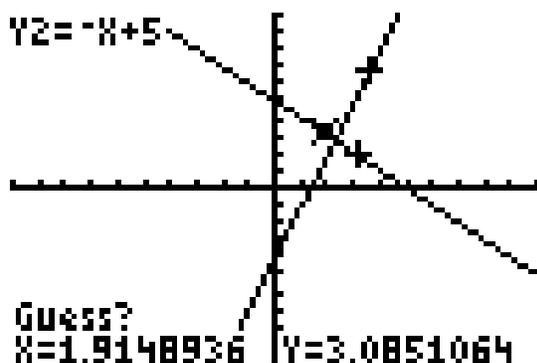
Try one yourself!

Find both intersections of the functions $-x^2+8x-10$ and $x-3$.

Answer: