**3C Simultaneous Equations Graphically (With the Discriminant)**

1. Draw the graphs of the following equations and use it to write down their solution:

 $2x+3y=10$

$$x$$

$$y$$

$$3x-y=4$$

1. Draw the graphs of the following equations and use it to write down their solution:

 $2x+y=3$

$$x$$

$$y$$

$$y=x^{2}-3x+1$$

Notes on the discriminant:







1. The line with equation $y=2x+1$ meets the curve with equation

$$kx^{2}+2y+\left(k-2\right)=0$$

at exactly one point. Given that $k$ is a positive constant:

1. Find the value of $k$
2. For this value of $k$, find the coordinates of the point of intersection