

## MATHEMATICS HOME ACTIVITY

WRITE ALL Questions USING YOUR BACKSIDE OF YOUR NOTEBOOK

Q1. Solve the following system by graphical method

$$\begin{cases} x + y = 4 \\ x - y = 2 \end{cases}$$

2. 
$$\begin{cases} 2x + y = 3 \\ 6x + 3y = 9 \end{cases}$$

3. 
$$\begin{cases} 2x - y = 3 \\ 6x - 3y = 0 \end{cases}$$

Q2.

Find the range of values of  $m$  for which the equation  $2x^2 - 5x + 3m - 1 = 0$  has

(a) two real roots

(b) no real root

(c) one double root.

Find the set of values of  $m$  for which  $x^2 + 3mx + m$  is positive for all real values of  $x$ .

Q3.

Solve in set of real numbers the following equations by factorization

1.  $x^2 + 6x + 8 = 0$

2.  $x^2 - 2x = 3$

3.  $2x^2 + 6x = -4$

4.  $12x^2 - 154 = 0$