# Question: 02

Polynomial equation F(x) having roots  real-positive ,real-negative and imaginary .
You have to find three factor f1(x), f2(x) and  f3(x)  such that

  f1(x)* f2(x)* f3(x) = F(x);

 all roots of  f1(x) are positive, real number with including 0,

 all roots of f2(x) are  negative, real number,

 and all roots of f3(x) are imaginary.

## Input:

t =number of test case;

Y = coefficient  sequence of N+1 ;  <u>exp</u> :- **equation x^4 + 2*x^3 + 4*x^2 − 2*x - 5**
**coefficient sequence is [1 2 4 -2 -5 ]**

## Output:

   f1(x), f2(x) and f3(x) = algebraic equations ;

## Sample input:

1

[1  2  4  -2 -5 ]

## Sample output:-

F1=(x-1)

F2=(x+1)

F3=(x+1-2*i)*(x+1+2*i)