Digital Signal Processing ET0096

Tutorial 1

1. Express in partial fractions the following expressions:

3x  2

x 2  3x  2

; A=

; B=

You can also use Matlab

>> syms x

>> partfrac((3\*x-2)/(x^2 - 3\*x + 2))

1. Express the following complex numbers in (a) polar form and (b) exponential form:

3 + j4

3 + j4 = 5 ? rad (polar form) = 5e**j?** (exponential form)

The **abs** and **angle** functions can be used to find the polar form components of a complex number.

>> a=3+4i

a =

3.0000 + 4.0000i

>> abs(a)

ans =

5

>> angle(a)

ans =

?