Assignment

1. Find the modulus of a complex number

$z = 2 - \sqrt{5}i$

Ans) $|z| = \sqrt{a^2+b^2} = \sqrt{2^2+(\sqrt{5})^2} = \sqrt{4+5} = \sqrt{9} = \underline{3}$

$|z| = 3$

2. Find the values of a and b if $3a + i(2b-a) = 6 - 3i$

Ans) $3a = 6$

$a = \frac{6}{3} = \underline{2}$

$2b - a = 3$

$2b - 2 = 3$

$2b = 5$

$b = \frac{5}{2} = \underline{2.5}$

3. Mark the complex number $z = -4 + 4i$ in the Argand plane.

Ans) $z = -4 + 4i$

$P = (-4, 4)$