

COMPLEX NUMBERS AND QUADRATIC EQUATIONS**ARGAND PLANE AND POLAR REPRESENTATION****EXERCISE**

- Q.1** Express the complex number $z = -1 + \sqrt{2}i$ in polar form.
- Q.2** Find the principal argument and $|z|$. If $z = \frac{-i(9+i)}{2-i}$
- Q.3** Find the $|z|$ and principal argument of the complex number
 $z = 6(\cos 310^\circ - i \sin 310^\circ)$

ANSWER KEY

1. where $\theta = \pi - \tan^{-1} \sqrt{2}$
2. $-\tan^{-1} \frac{17}{11}, \sqrt{\frac{82}{5}}$
3. $6, 50^\circ$