## Edexcel AS Further Maths Complex numbers

## Section 2: The Argand diagram

## Exercise level 2

1. Given that $z=2+\mathrm{i}$ show on an Argand diagram $z, z^{*}, \mathrm{i} z$, and $\mathrm{i} z^{*}$. Describe the transformation that describes the relationship between
(i) $z$ and $z^{*}$
(ii) $z$ and $\mathrm{i} z$.
2. Given that $z=4+3 \mathrm{i}$ and $w=1-2 \mathrm{i}$, represent the following complex numbers on an Argand diagram.
(i) $z$
(ii) $w$
(iii) $z+w$
(iv) $w^{*}$
3. Given that $z_{1}=3+2 \mathrm{i}$ and $z_{2}=4-\mathrm{i}$, represent $z_{1}, z_{2}, z_{1}+z_{2}$ and $z_{1}-z_{2}$ on an Argand diagram.
