

Complex Nos Question

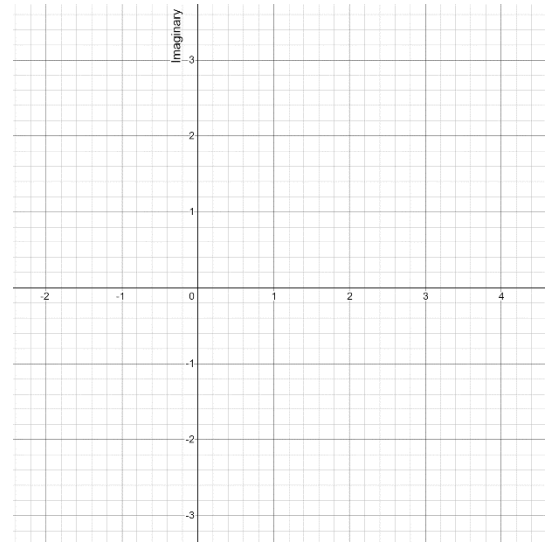
(a) Let $w = 3 - 2i$, where $i^2 = -1$

Plot

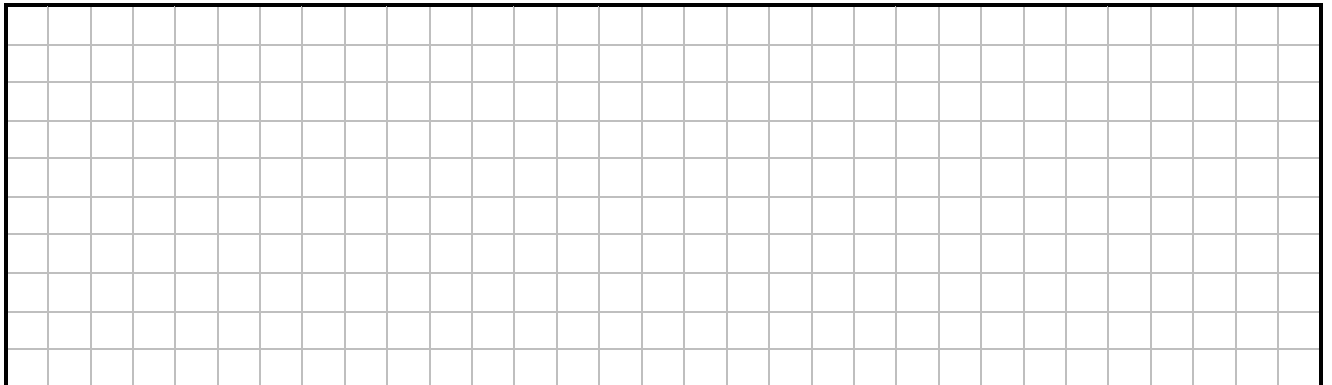
(i) w and

(ii) iw on an Argand diagram.

Label each point clearly.



(b) Solve $(x + 2yi)(1 - i) = 7 + 5i$ for real x and for real y .



(c) Let $z_1 = 3 + 4i$ and $z_2 = 12 - 5i$.

\bar{z}_1 and \bar{z}_2 are the complex conjugates of z_1 and z_2 , respectively.

∴ Show that $z_1\bar{z}_2 + \bar{z}_1z_2$ is a real number.

