

Examination Style Paper

2. (a) 1.29
3. (a) \mathbf{R} represents a rotation of 135° anti-clockwise about $(0, 0)$

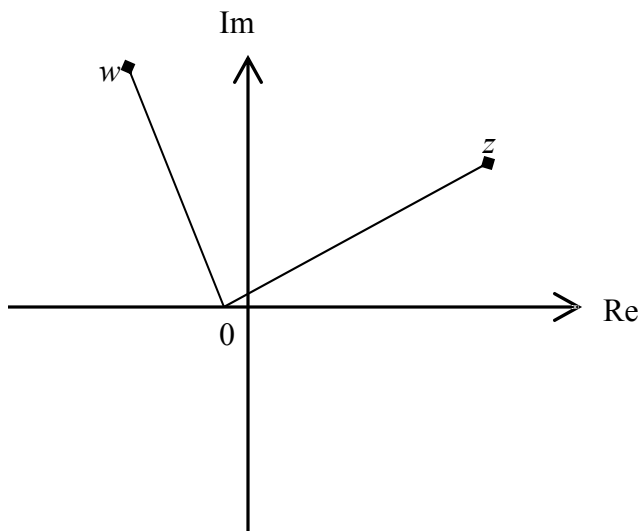
\mathbf{S} represents an enlargement scale factor $\sqrt{2}$, centre $(0, 0)$

(b) $\begin{pmatrix} -1 & -1 \\ 1 & -1 \end{pmatrix}$

- (c) 2
4. (a) $1 - i$
(b) $z^2 - 2z + 2$
(c) $-1 + 2i$ and $-1 - 2i$

6. (a) $\begin{pmatrix} x+4 & 7-2x \\ 1 & x \end{pmatrix}$

- (b) -7 or 1
7. (a) $z = 4 + 3i$, $w = -3 + 4i$
(b) 5
(c) 2.21
(d)



- (e) $5\sqrt{2}$
8. (a) $y = -\frac{1}{2} + 4\frac{1}{2}$
(b) $(-4, 6.5)$
(c) $\left(\frac{169}{64}, \frac{13}{2}\right)$