Section A	Concepts and Skills	150 marks

Answer **all six** questions from this section.

Question 1 **(25 marks)**

(a) $(-4+3i)$ is one root of the equation $az^2+bz+c=0$, where $a, b, c \in \mathbb{R}$, and $i^2=-1$.
Write the other root.

(b) Use De Moivre's Theorem to express $(1+i)^8$ in its simplest form.

(c) $(1+i)$ is a root of the equation $z^2+(-2+i)z+3-i=0$.
Find its other root in the form $m+ni$, where $m, n \in \mathbb{R}$, and $i^2=-1$.

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