

Advanced Higher Maths
SQA 2024 Paper 1
Question 2

A complex number is defined by $z = 1 + i$.

- (a) Express z in polar form. 2
- (b) Use de Moivre's theorem to evaluate z^8 . 2
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Answers:

(a) $\sqrt{2} \left(\cos \frac{\pi}{4} + i \sin \frac{\pi}{4} \right)$

(b) 16