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**Question 4 continued**

**(Total 10 marks)**

**Q4**

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**5.** (a) Express the complex number $-8 - 8i\sqrt{3}$ in the form $r(\cos\theta + i\sin\theta)$, where $r > 0$ and $-\pi < \theta \leqslant \pi$

**(3)**

(b) Hence solve the equation $z^4 = -8 - 8i\sqrt{3}$, giving the roots in the form $z = a + ib$ where $a$ and $b$ are real.

**(5)**

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**Question 5 continued**

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**Question 5 continued**

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**Question 5 continued**

**Q5**

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