Question 1 (4 marks)
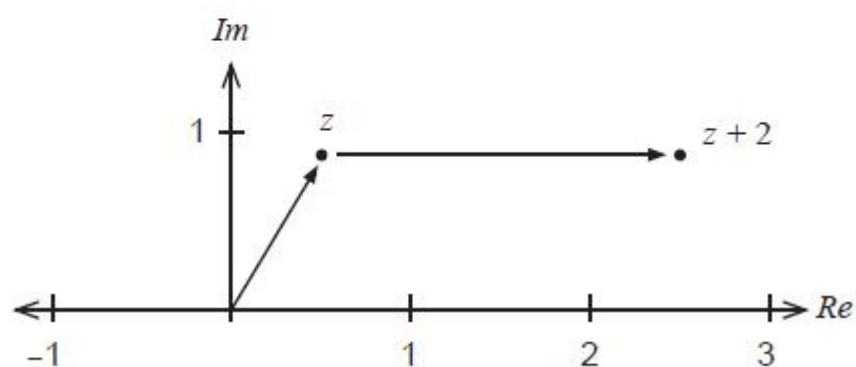
The Argand diagram below shows the complex numbers z and $z+2$ where $z = cis\left(\dfrac{\pi}{3}\right)$.

Determine the exact value for:

(a) $Arg\,(-z)$. (1 mark)

(b) $|z+2|$. (3 marks)