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11	2b	Find the exact values of x such that $2 \sin x = -\sqrt{3}$, where $0 \leq x \leq 2\pi$.	2
$2 \sin x = -\sqrt{3}$ $\sin x = -\frac{\sqrt{3}}{2}$ $x = \frac{4\pi}{3}, \frac{5\pi}{3}$			State Mean: 1.48/2

* These solutions have been provided by [projectmaths](#) and are not supplied or endorsed by the Board of Studies

Board of Studies: Notes from the Marking Centre

This part was generally done well with the majority using exact values in radians and finding results in the correct quadrants. Relatively few responses were given in degrees only. A small number worked in radians but gave decimal approximations.

The better responses used a circle diagram to work out the quadrants, used 60° or $\frac{\pi}{3}$

as a reference angle and correctly simplified the resulting sums of fractions $\pi + \frac{\pi}{3}$ and

$2\pi - \frac{\pi}{3}$. The most common problems involved converting from degrees to radians and giving only one solution. In some responses with -60° , the negative sign proved a problem.

Source: http://www.boardofstudies.nsw.edu.au/hsc_exams/