

13	6	Let $ a \leq 1$. What is the general solution of $\sin 2x = a$? (A) $x = n\pi + (-1)^n \frac{\sin^{-1} a}{2}$, n is an integer (B) $x = \frac{n\pi + (-1)^n \sin^{-1} a}{2}$, n is an integer (C) $x = 2n\pi \pm \frac{\sin^{-1} a}{2}$, n is an integer (D) $x = \frac{2n\pi \pm \sin^{-1} a}{2}$, n is an integer	1
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BState Mean:
0.42As $\sin \theta = a$, then $\theta = n\pi + (-1)^n \sin^{-1} a$:

$$\begin{aligned}\therefore 2x &= n\pi + (-1)^n \sin^{-1} a \\ x &= \frac{n\pi + (-1)^n \sin^{-1} a}{2}\end{aligned}$$

* These solutions have been provided by [projectmaths](http://projectmaths.com.au) and are not supplied or endorsed by the Board of Studies