Marked example 2

Paper 1 style · No calculator

2 4 marks SL 3.8

●●○ Typical

Solve $2\sin(2x) = 1$, for $0 \leq x \leq 2\pi$.

MARKSCHEME

$\sin 2x = \frac{1}{2},\ 0 \leq 2x \leq 4\pi$ **M1**

$2x = \frac{\pi}{6}, \frac{5\pi}{6}, \frac{13\pi}{6}, \frac{17\pi}{6}$ **A1**

$x = \frac{\pi}{12}, \frac{5\pi}{12}$ **A1**

$x = \frac{13\pi}{12}, \frac{17\pi}{12}$ **A1**

Total 4 marks

Note The interval for $2x$.

Written and verified by a practising IB mathematics teacher, produced with AI assistance; solved twice and recomputed by software. Not affiliated with or endorsed by the International Baccalaureate Organization. © 2026 Hence