## Higher Maths SQA 2018 Specimen Paper 2 Question 10



Given that

$$\int_{\frac{\pi}{8}}^{a} \sin\left(4x - \frac{\pi}{2}\right) dx = \frac{1}{2}, \quad 0 \le a < \frac{\pi}{2},$$

calculate the value of a.

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Answer:

$$a = \frac{3\pi}{8}$$