

14 In this question you must show detailed reasoning.

Fig. 14 shows the graphs of $y = \sin x \cos 2x$ and $y = \frac{1}{2} - \sin 2x \cos x$.

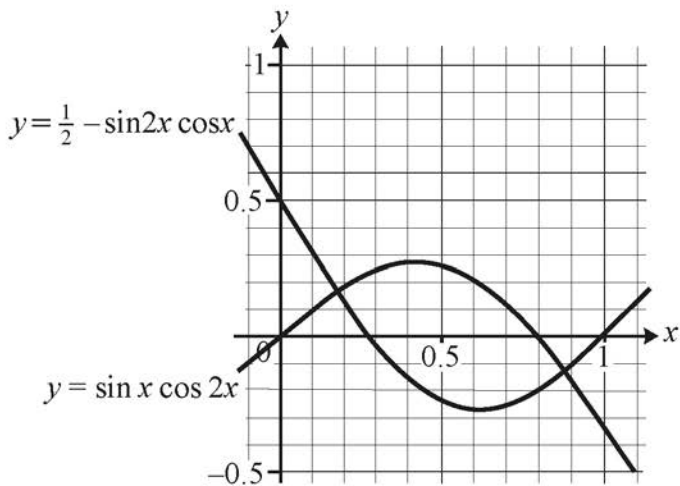


Fig. 14

Use integration to find the area between the two curves, giving your answer in an exact form. **[8]**