| 12 | $\mathbf{7}$ | Which expression is equal to $\int \sin ^{2} 3 x d x$ ? |
| :--- | :--- | :--- |

(A) $\frac{1}{2}\left(x-\frac{1}{3} \sin 3 x\right)+C$
(B) $\frac{1}{2}\left(x+\frac{1}{3} \sin 3 x\right)+C$
(C) $\frac{1}{2}\left(x-\frac{1}{6} \sin 6 x\right)+C$
(D) $\frac{1}{2}\left(x+\frac{1}{6} \sin 6 x\right)+C$

C

$$
\begin{aligned}
\int \sin ^{2} 3 x d x & =\int \frac{1}{2}(1-\cos 6 x) d x \\
& =\frac{1}{2}\left(x-\frac{1}{6} \sin 6 x\right)+C
\end{aligned}
$$

[^0]
[^0]:    * These solutions have been provided by projectmaths and are not supplied or endorsed by the Board of Studies

