

20 **6** Which interval gives the range of the function $y = 5 + 2 \cos 3x$? **1**
MA A. [2, 8] B. [3, 7] C. [4, 6] D. [5, 9]

B

The range of $y = \cos x$ is $[-1, 1]$.

$$\therefore -1 \leq \cos 3x \leq 1$$

$$-2 \leq 2 \cos 3x \leq 2$$

$$3 \leq 5 + 2 \cos 3x \leq 7$$

\therefore the range is $[3, 7]$.

State Mean:
0.77/1

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

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