



TG **3** The following table shows the velocity
ADI (in metres per second) of a moving object
evaluated at 10-second intervals.

Time	30	40	50	60	70
Velocity	0	4.6	5.7	8	9.9

Use the trapezoidal rule to obtain an estimate of the distance travelled by the object over the time interval $30 \leq t \leq 70$.

$$\begin{aligned}\text{Distance} &= \frac{10}{2} [0 + 9.9 + 2(4.6 + 5.7 + 8 \times 10)] \\ &= 232.5\end{aligned}$$

\therefore the object has travelled approximately 232.5 m.

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

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