Velocity Time Graphs and Displacement
A toy car moves at a constant velocity of $6 \mathrm{~m} / \mathrm{s}[\mathrm{N}]$ for 10 seconds. Find the displacement of the car from the third to seventh second?


$$
\begin{aligned}
\text { Area } & =v t \\
& =6 \times 4 \\
& =24 \mathrm{~m}[\mathrm{~N}]
\end{aligned}
$$

The area under a $\bar{v}-t$ graph equals displacement.

