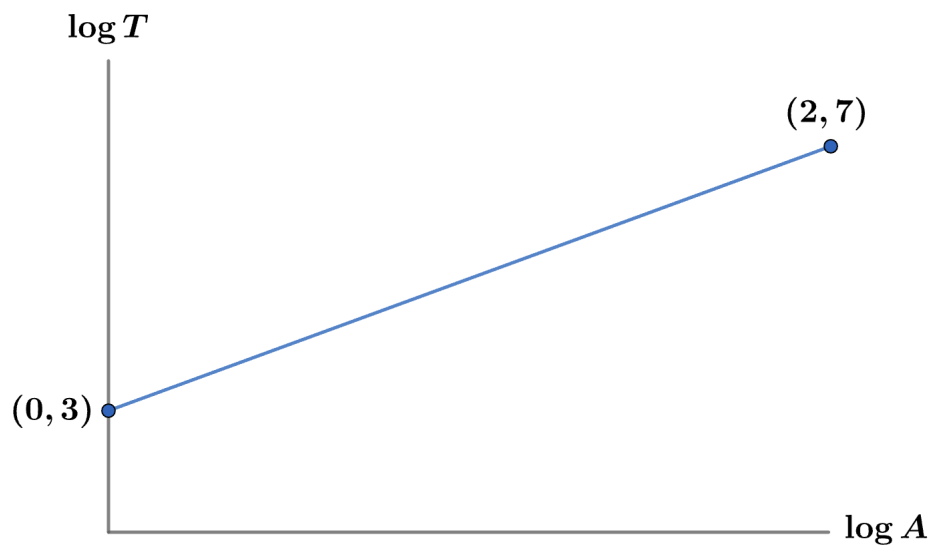


2012 F=ma Exam: Problem 17

Kevin S. Huang



From the graph, we have a line with slope $(7 - 3)/(2 - 0) = 2$ and intercept 3. Thus, T and A are related by

$$\begin{aligned}\log T &= 2 \log A + 3 \\ T &= 10^{2 \log A + 3} = 10^3 10^{\log A^2} = 1000A^2\end{aligned}$$

so the answer is \boxed{A} .