

JEE MAIN SEQUENCES AND SERIES — RELATIONSHIP BETWEEN A.M. AND G.M. — PYQS

Max. Marks: 4
Questions: 1

Section B (Numerical) — 1 question

- Q.1** For the functions $f(\theta) = \alpha \tan^2 \theta + \beta \cot^2 \theta$, and $g(\theta) = \alpha \sin^2 \theta + \beta \cos^2 \theta$, $\alpha > \beta > 0$, let $\min_{0 < \theta < \frac{\pi}{2}} f(\theta) = \max_{0 < \theta < \pi} g(\theta)$. If the first term of a G.P. is $\left(\frac{\alpha}{2\beta}\right)$, its common ratio is $\left(\frac{2\beta}{\alpha}\right)$ and the sum of its first 10 terms is $\frac{m}{n}$, $\gcd(m, n) = 1$, then $m + n$ is equal to _____.

[JEE Main 2026 (Online) 6th April Morning Shift]

Scan or tap for the full solution



ANSWER KEY

Ques.	1						
Ans.	1279						