

**JEE MAIN SYSTEM OF PARTICLES AND ROTATIONAL MOTION —
CONSERVATION OF ANGULAR MOMENTUM — PYQS****Max. Marks: 4****Questions: 1****Section B (Numerical) — 1 question**

- Q.1** A solid sphere with uniform density and radius R is rotating initially with constant angular velocity (ω_1) about its diameter. After some time during the rotation it starts losing mass at a uniform rate, with no change in its shape. The angular velocity of the sphere when its radius becomes $R/2$ is $x\omega_1$. The value of x is _____.

[JEE Main 2025 (Online) 4th April Evening Shift]

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full solution

**ANSWER KEY**

Ques.	1																			
Ans.	32																			