**TOPIC**
Strength of Materials

**QUESTION**
A hollow cylinder of length 6", and inner and outer radius 1.5" and 3", respectively is twisted by a torque of 2000 lb-in. Given the shear modulus, G=11,000 psi, Poisson’s ratio is 0.3333, the angle of twist in degrees most nearly is

(A) 1.048°
(B) 0.524°
(C) 0.0873°
(D) 1.397°

**HINT**
Polar moment of area, \( J = \frac{\pi}{2} \left( r_o^4 - r_i^4 \right) \)

The angle of twist, \( \phi = \frac{TL}{JG} \)

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