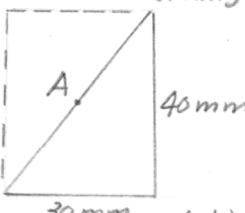


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$$\begin{aligned}
 (J_A)_{\text{triangle}} &= \frac{1}{2} (J_A)_{\text{rectangle}} \\
 &= \frac{1}{2} \left[\frac{1}{12} A (b^2 + h^2) \right] \quad \text{from Sample Prob. A/1} \\
 &= \frac{1}{24} (30)(40)(30^2 + 40^2) = 12.5(10^4) \text{ mm}^4
 \end{aligned}$$

$$(J_A)_{\text{triangle}} = k_A^2 A$$

So $k_A = \sqrt{\frac{12.5(10^4)}{30(40)/2}} = \sqrt{208.4} = 14.43 \text{ mm}$

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