

8/5	$\text{error} = \frac{(\frac{1}{2}mr^2 + md^2) - md^2}{\frac{1}{2}mr^2 + md^2} = \frac{1}{1 + 2(d/r)^2}$
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(a)  $d = 10r$ , % error  $e = \frac{100}{1 + 200} = \underline{0.498\%}$

(b)  $d = 2r$ , % error  $e = \frac{100}{1 + 8} = \underline{11.11\%}$