

- (d) Theory also shows that the Young modulus in pascal (Pa) for this mass is given by:

$$E = \frac{8l^3}{hbd^3} ,$$

where  $l$  = length of overhang in m  
 $b$  = width of rule in m  
 $d$  = thickness of rule in m  
 $h$  = depression in m.

Use your results in (b)(i) and (c) to calculate two new values for the Young modulus. [2]

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- (e) Which of the two methods do you consider to be the more accurate? Explain your answer. [2]

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