

Solomon Practice Paper

Mechanics 2B

Time allowed: 90 minutes

Centre: www.CasperYC.club

Name:

Teacher:

Question	Points	Score
1	7	
2	7	
3	10	
4	10	
5	10	
6	15	
7	16	
Total:	75	

How I can achieve better:

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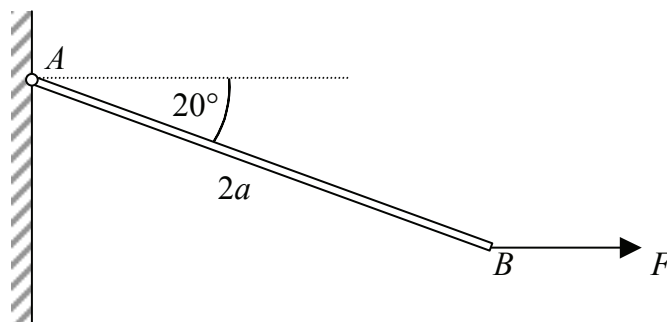


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5. A uniform rod AB of length $2a$ and mass 8kg is smoothly hinged to a vertical wall at A .



The rod is held in equilibrium inclined at an angle of 20° to the horizontal by a force of magnitude F newtons acting horizontally at B which is below the level of A as shown in Figure.

- (a) Find, correct to 3 significant figures, the value of F . [4]
- (b) Show that the magnitude of the reaction at the hinge is 133 N , correct to 3 significant figures, and find to the nearest degree the acute angle which the reaction makes with the vertical. [6]

Total: 10

