[Print]

COZ Block 7

Due: 11:59pm on Friday, October 22, 2010

Note: You will receive no credit for late submissions. To learn more, read your instructor's Grading Policy

[Switch to Standard Assignment View]

COZ Block 7 - Problem 1 The pin-connected mechanism is constrained at A by a pin and at B by a roller. Part A Determine the force P that must be applied to the roller to hold the mechanism in equilibrium when $\theta = 22^{\circ}$. The spring is unstretched when $\theta = 45^{\circ}$. Neglect the weight of the members. Express your answer with the appropriate units. 0.15 m AMAMA 0.15 m ANSWER: P = Answer not displayed COZ Block 7 - Problem 2 The structure with a total length of 8 m is loaded by a force F = 18 kN at a distance d = 3.4 m from the support on the left. Part A Determine the bending moment at a distance # = 1.5 III from the roller support on the left hand side. Hint: Solve using the principle of virtual work and use previously mastered methods to check your answer. Express your answer with the appropriate units.

ANSWER: $M_{ar} = Answer not displayed$

COZ Block 7 - Problem 3

Determine the angles θ for equilibrium of the 25 \mathbb{N} disk using the principle of virtual work. Neglect the weight of the rod. The spring is unstretched when $\theta = 0^{\circ}$ and always remains in the vertical position due to the roller guide.

Enter your answers in ascending order separated by a comma.

ANSWER:

Part A

= Answer not displayed degrees





Calculate the internal moment at B (in kNm). Use the sign convention from the figure. Hint: Solve using the principle of virtual work and use previously mastered methods to check your answer.

Express your answer with the appropriate units.

 $M_{I\!\!B}$ = Answer not displayed

ANSWER:



COZ Block 7 - Problem 8

	GOZ BIOCK / - I TOBIEIT O	
The structure gi the left part and	ven consists of two parts, connected using a hinge at S. It is supported as shown. A a vertically distributed load $q = 35 \text{ kN/m}$ is applied on the right part. $a = 8 \text{ m}$	A force F = 20 ${f k}{f N}$ is applied in the middle of
Part A		
Calculate the check your an	reaction force at A. Positive upwards. Hint: Solve using the principle of virtual work swer.	and use previously mastered methods to
Express you	r answer with the appropriate units.	
		$\begin{array}{c} & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & & \\$
ANSWER:	F ₄ = Answer not displayed	
	COZ Block 7 - Problem 9	

http://session.masteringengineering.com/myct/assignmentPrintView?assignmentID=10... 2-11-2010

Part A	
Calculate the normal force in C. Use the correct signs for tension and compre previously mastered methods to check your answer.	ession. Hint: Solve using the principle of virtual work and u
Express your answer with the appropriate units.	
ANSWER: No = Answer not displayed	
COZ Block 7 - Pro	blem 10
e frame in the figure is supported by a hinge in A and a roller in G. It is loade tributed force $q = 7.5 \text{ kN/m}$ on section EG. $q = 0.75 \text{ m}$	d by a couple $M=6$ kN \star m in D, a force $F=$ 10 kN in B a
Part A	. Hint: Solve using the principle of virtual work and use
Calculate the shear force in C with the sign convention as shown in the figure previously mastered methods to check your answer.	

Score Summary:

Your score on this assignment is 0%. You received 0 out of a possible total of 10 points.