## ENDS 231: Practice Quiz 2

Note: A one page (one sided) crib sheet is allowed during the quiz, along with a silent, non-programmable calculator.

## Clearly show your work and answer.

The structure shown is supporting a cable system with a force due to a mass. (NOTE: The support configuration for the non-cables in the system and the slopes of the cables can be changed for the quiz!)

Using clear free body diagrams, determine:
a) the forces in cables CD and DE .
b) the support reactions (with direction).
c) [some short question from the text material]


Answers - Not provided on actual quiz!
a) $\mathrm{CD}=591.6 \mathrm{~N}, \mathrm{DE}=591.6 \mathrm{~N}$
b) $\mathrm{A}_{\mathrm{x}}=-618.9 \mathrm{~N} \mathrm{~A}=443.0 \mathrm{~N}, \mathrm{M}_{\mathrm{RA}}=+3203.4 \mathrm{~N}-\mathrm{m}$

