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Statics

5.2.2017

Calculated/experimental results

Calculated

* Ay(0.34m)-6.86N(0.17m)=0; Ay=3.43N
* 3.43N(0.17m)-Fab(0.17m)=0; Fab=-3.43N=Fbc
* -3.43N+6.86N-(0.17m/0.24m)Fdc=0; Fdc=4.84N
* Using the same formulas but substituting different force values:
* For 4.90N: Fab=Fbc=-2.45N, Fdc=3.46N
* For 9.81N: Fab=Fbc=-4.905N, Fdc=6.92N

Experimental

* When we applied three load cells in members DC, AB, and BC, here were the recorded values:
  + 700g=-3.23N (Fab), -3.24N (Fbc), 3.36N(Fdc)
  + 500g=-2.23N (Fab), -2.19N (Fbc), 3.16N(Fdc)
  + 1000g=-4.54N (Fab), -4.58N (Fbc), 6.49N(Fdc)

