

Quiz 2 Comments

Question 1) Grading Scheme:

- +3 for choosing correct Free Body Diagram.
- +1 for each correct explanation of erroneous Free Body Diagram.

Many students that answered this question incorrectly chose C). Know that you don't show internal forces, such as tensions, in a FBD when the member is not cut.

Question 2) Grading Scheme:

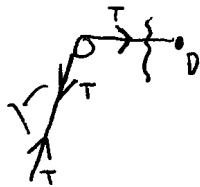
- +5 for totally correct FBD
- +2 for correct R_A
w/ partial credit if methods look good.
- +3 for correct T
w/ partial credit if methods look good.

In this problem, simplicity is better; many students tried complex analysis that exploded quickly. Also, many students continue to mess up on fundamentals:

- Vector expressions are not the same as scalar expressions \Rightarrow be consistent!

- Poor FBD's with "incorrect support conditions (roller at A and not a pin), "accounted for" the tension in the rope twice by cutting it twice (internal forces must balance to zero), "no free body (ropes not cut from point D).

Cancel forces here



- moment calculations

$$\text{Good} \equiv \underline{M} = \underline{r} \times \underline{F}$$

$$\text{Bad} \equiv \underline{M} = \underline{F} \times \underline{r}$$