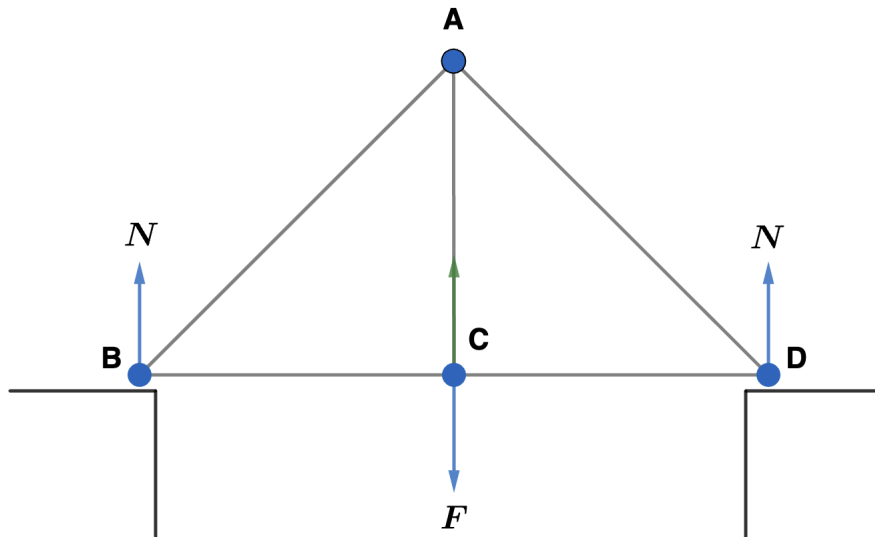
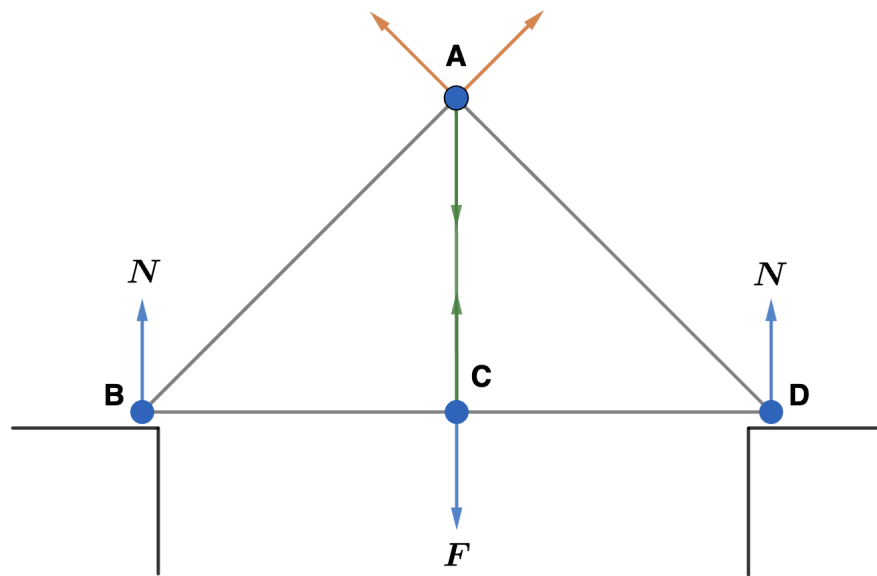


2024 F=ma Exam: Problem 3

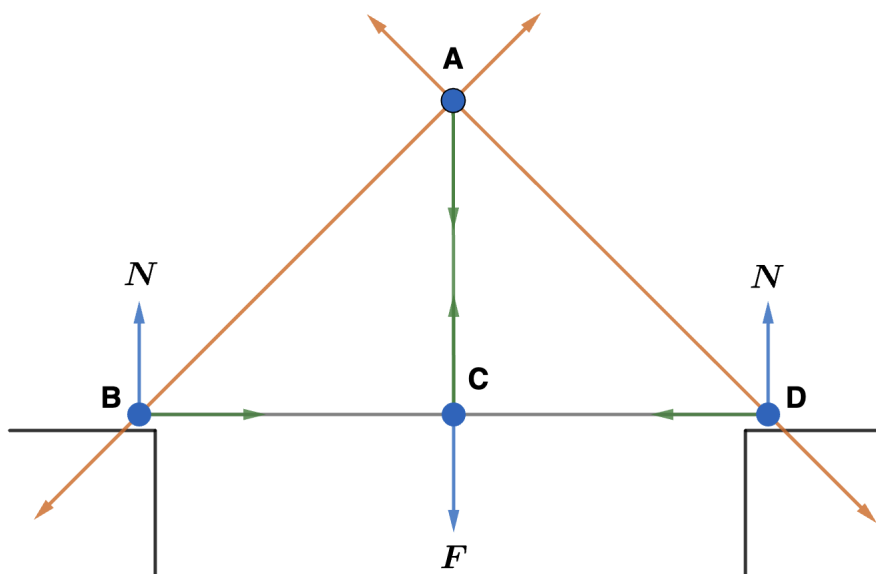
Kevin S. Huang



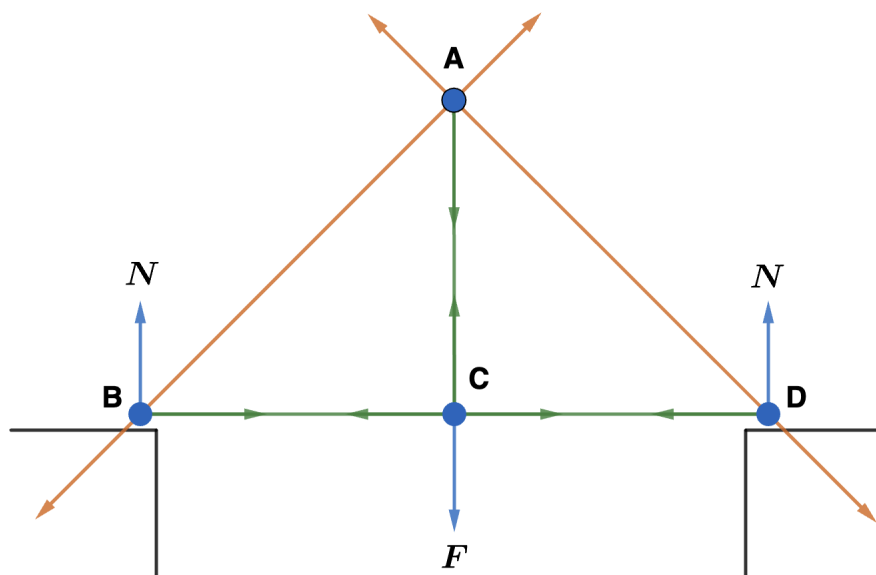
Balancing forces in the vertical direction at point C, we see that rod AC must be in tension (the force of the vertex on the rod would be downward by Newton's 3rd law).



Then balancing forces in the vertical direction at point A, we see that rods AB and AD must be in compression.



Finally balancing forces in the horizontal direction at points B and D, we see that rods BC and CD must be in tension.



Only the vertical rod and the horizontal rods are in tension so the answer is D.