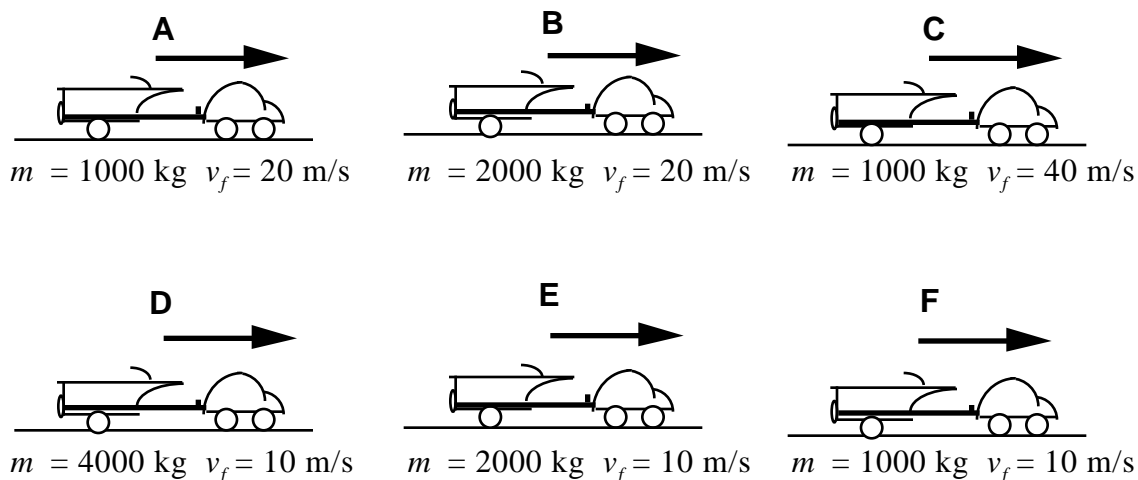


Accelerating Car and Boat Trailer—Force Difference ³⁰

Rank from greatest to least on the basis of the difference between the strength (magnitude) of the force the car exerts on the boat trailer and the strength of the force the trailer exerts on the car during the period when the boat trailers are accelerating from rest to the given final speeds. All the trailers and cabs are identical, but the boat trailers have different loads, so the boat trailer masses vary.



Greatest 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ Least

Or, the differences between the two forces are the same in all situations. _____

Please carefully explain your reasoning.

How sure were you of your ranking? (circle one)

Basically Guessed

Sure

Very Sure

1 2 3 4 5 6 7 8 9 10

³⁰ P. Golden, A. Dickison, D. Maloney, T. O’Kuma, C. Hieggelke