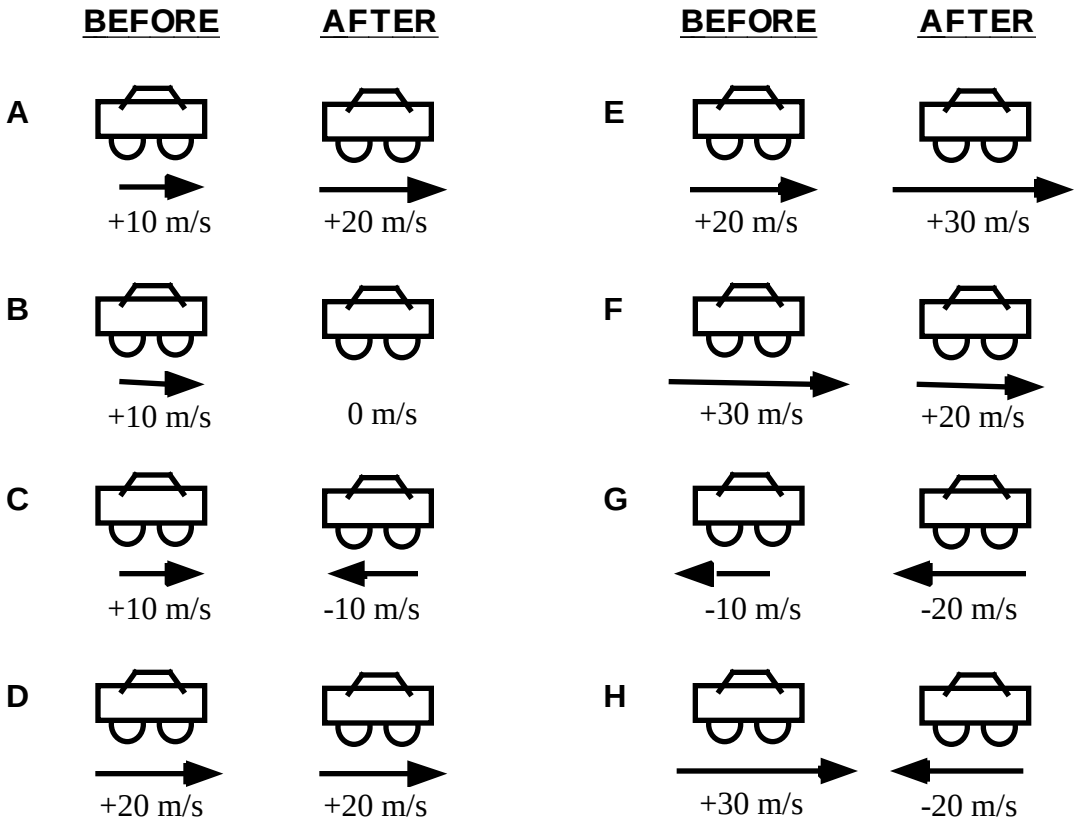
Cars—Work Done in Change of Velocity [59]

The eight situations below show *before* and *after* "snapshots" of a car's velocity. Rank these situations, in terms of work done on the car, from most positive to most negative, to create these changes in velocity for the same distance traveled. All cars have the same mass. Negative numbers, if any, rank lower than positive ones (-20 m/s < -10 m/s < 0< 5).



Most Most
Positive 1_____ 2_____ 3_____ 4_____ 5_____ 6_____ 7_____ 8_____ Negative

Or, the work done on the cars is the same (but not zero) for all of these. _____

Or, the work done on the cars is zero for all of these. _____

Or, it is not possible to determine the work done on the cars for all these cases. _____

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

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