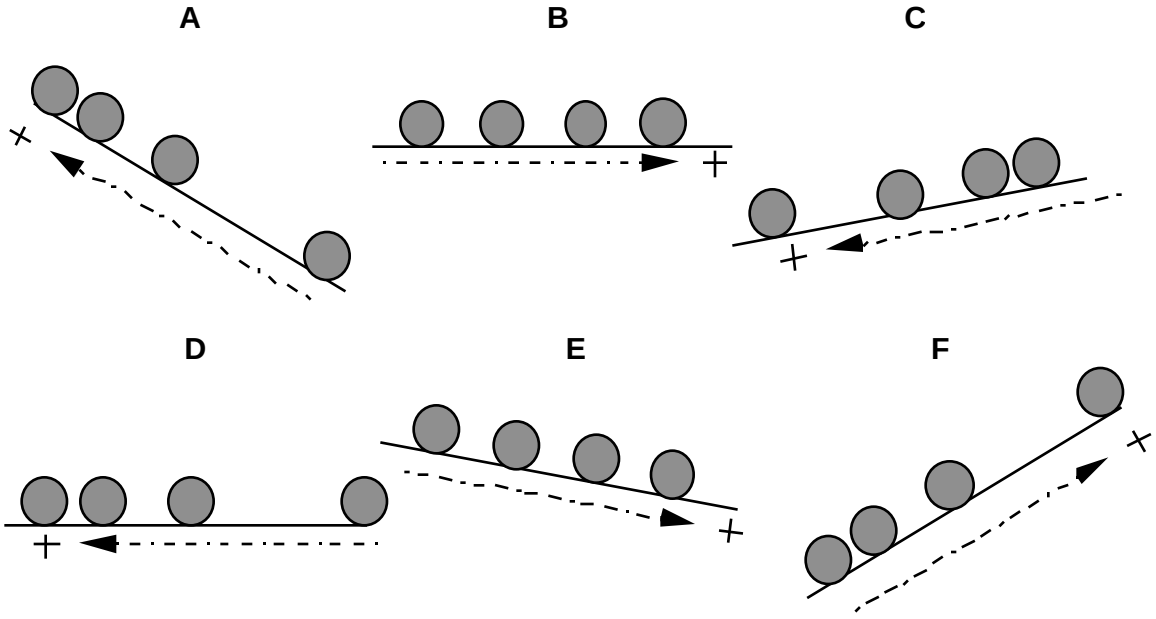
Ball Motion Diagram—Kinetic Energy [67]

The following drawings indicate the motion of a ball subject to one or more forces on various surfaces from left to right. Each circle represents the position of the ball at succeeding instants of time. Each time-interval between positions is equal. In all situations, the balls start with the same velocity.

Rank each case from the highest to the lowest final kinetic energy based on the figures using the coordinate system shown in the diagram. Assume the acceleration for each situation to be constant.



Highest 1_____ 2_____ 3_____ 4_____ 5_____ 6_____ Lowest

Or, all have the same final kinetic energy._____

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

[67] D. Maloney