# Objects in Different Situations—Accelerations [5]

The following objects are sitting, falling, rolling, swinging, or just going in circles, as indicated in the different situations below. Each has an acceleration in some direction or another. You are to rank them from greatest to least on the basis of the magnitude of acceleration. If two or more objects have the same acceleration, rank them the same.

**A.** Object dropped from the top of a building.

**B.** Object rolling from rest down an inclined plane.
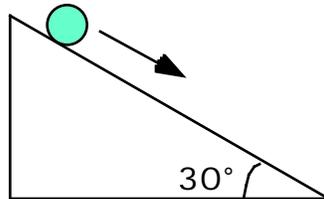
**C.** Object rolling up a inclined plane after being given an initial velocity of 4 m/s.
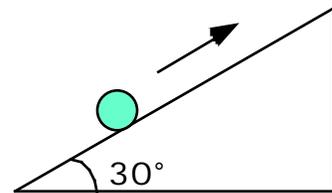


**D.** Object sitting on table top motionless.
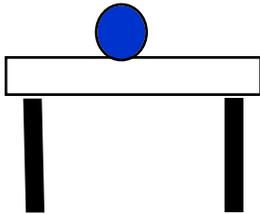
**E.** Object attached to a string at the bottom of the swing.
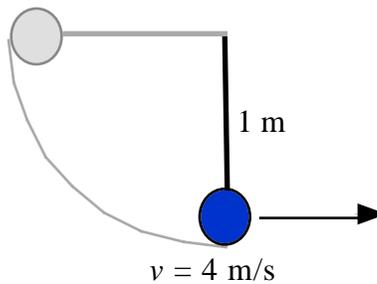
**F.** Object traveling in a circle with constant speed
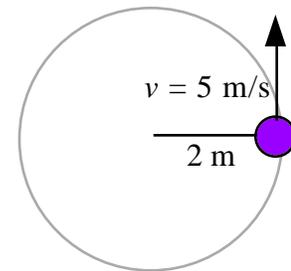


Greatest    1_____    2_____    3_____    4_____    5_____    6_____    Least

Or, all of these have the same magnitude of acceleration._____

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