

Name \_\_\_\_\_ Group \_\_\_\_\_

## Parking on a Hill

A. If you park on a hill with a 10 degree slope with the car held by the parking brake, what is the magnitude of the frictional force that holds your car in place?

B. The coefficient of static friction between your car's wheels and the road when wet is 0.30. What is the largest angle slope on which you can park your car in the rain so that it will not slide down the hill?

C. The coefficient of kinetic friction between your wheels and the wet road surface is 0.25. If someone gave your car a push on the wet hill from B and it started sliding down, what would its acceleration be?