Motion on Incline Level 3

Step 1: Below is a picture of your block on an inclined plane on a planet other than Earth. Fill into the picture the mass on your block, the starting velocity of the block, the gravitational field (acceleration) of the planet, the coefficient of friction between your surfaces, and the angle of your incline



Step 2: Draw in all your forces for the block going up the hill and then again when it is going down the incline. Break gravity into its components. Calculate the value of all forces and components that are shown in the picture. Show you work below



Step 3: Find the net force and acceleration of the block twice. Once for moving up the incline and then again for down the incline.

Step 4: Use your motion equations twice. Find the time and distance it travels up the incline. Then find the time and speed when it moves back down the incline to its original position. Enter the answers into your program to make sure you did everything correctly