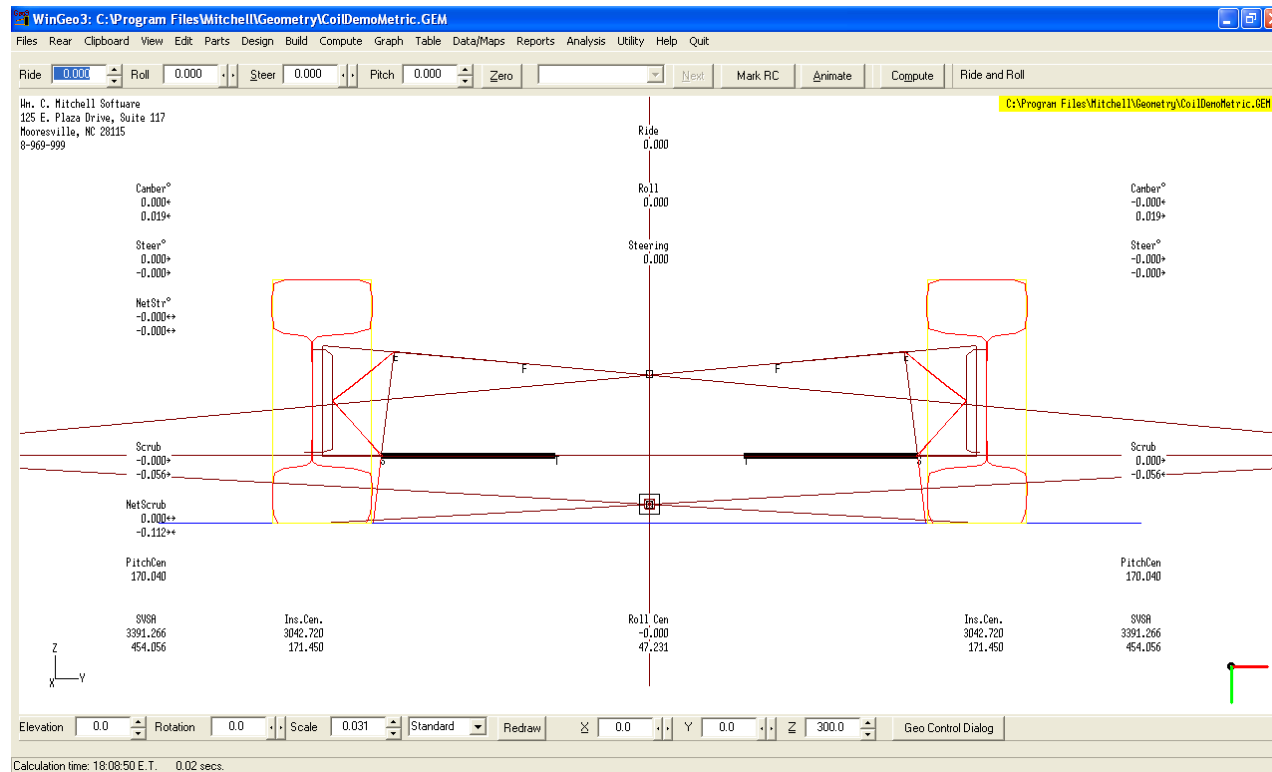
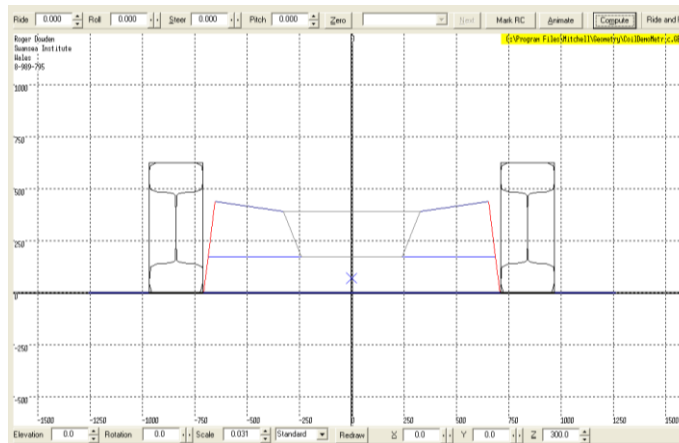
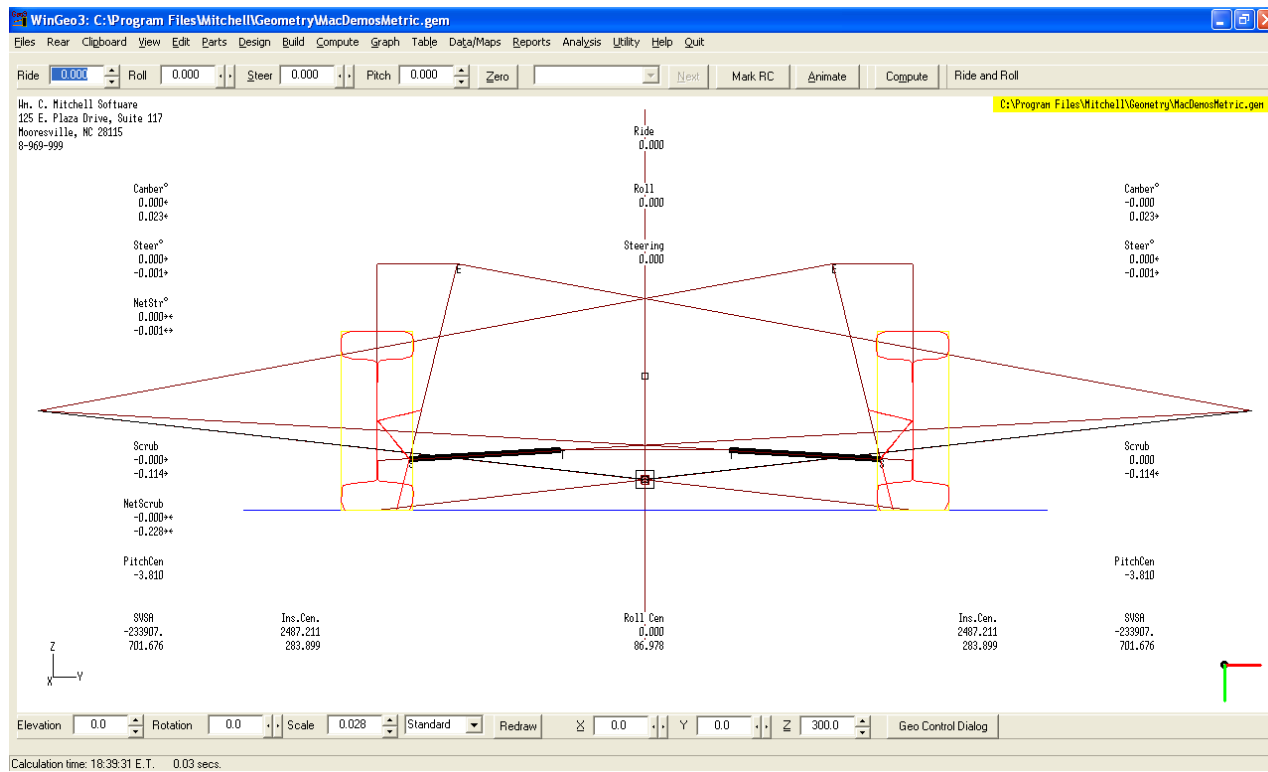
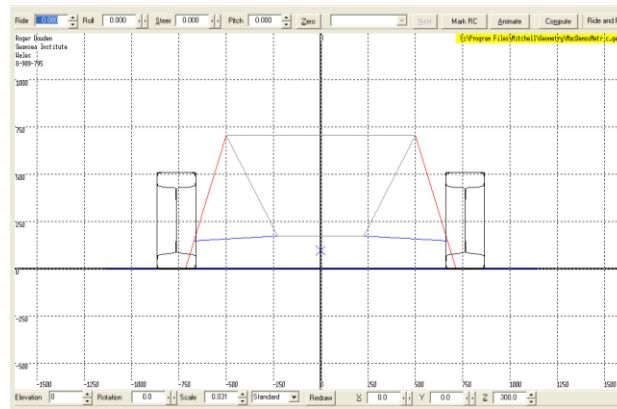
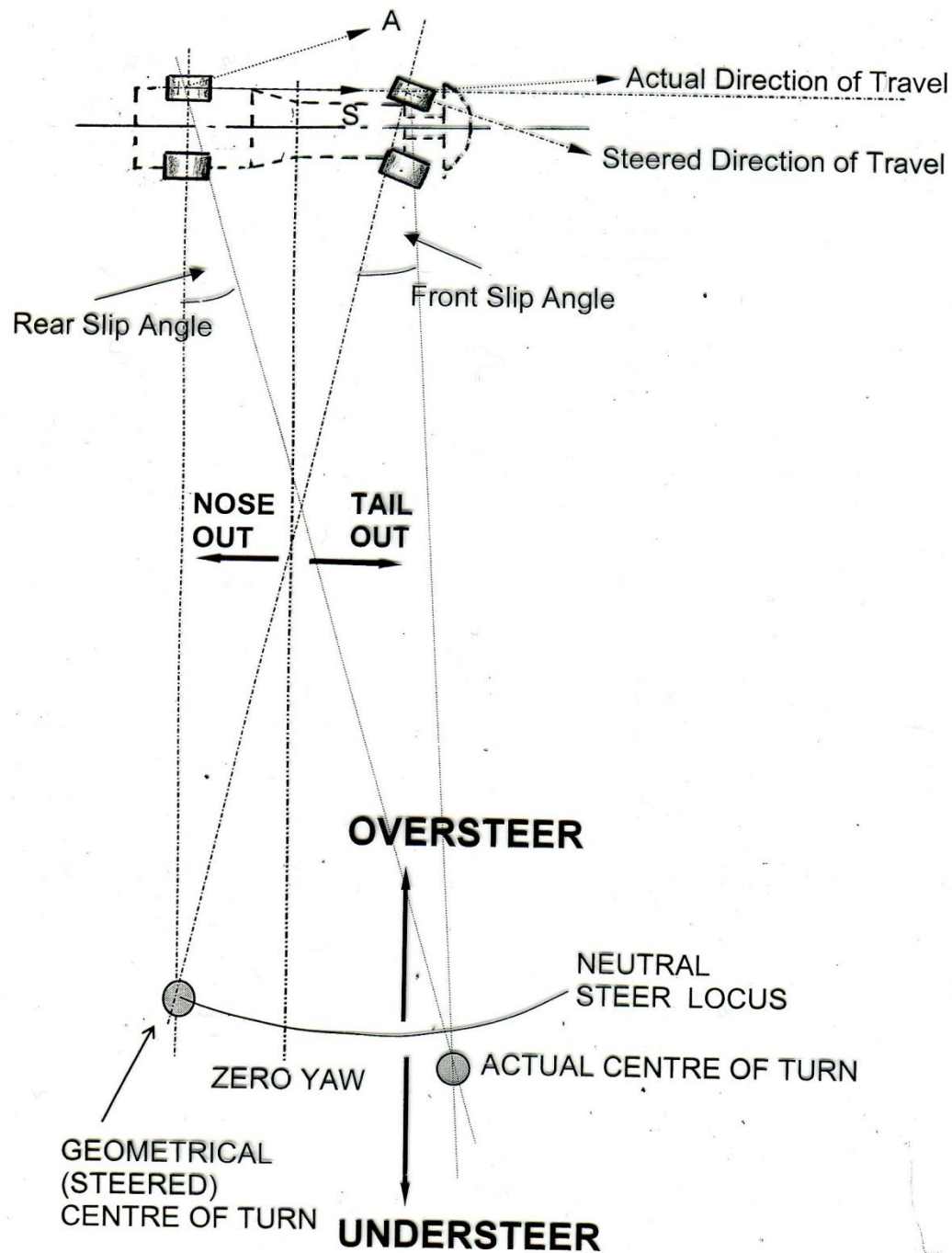
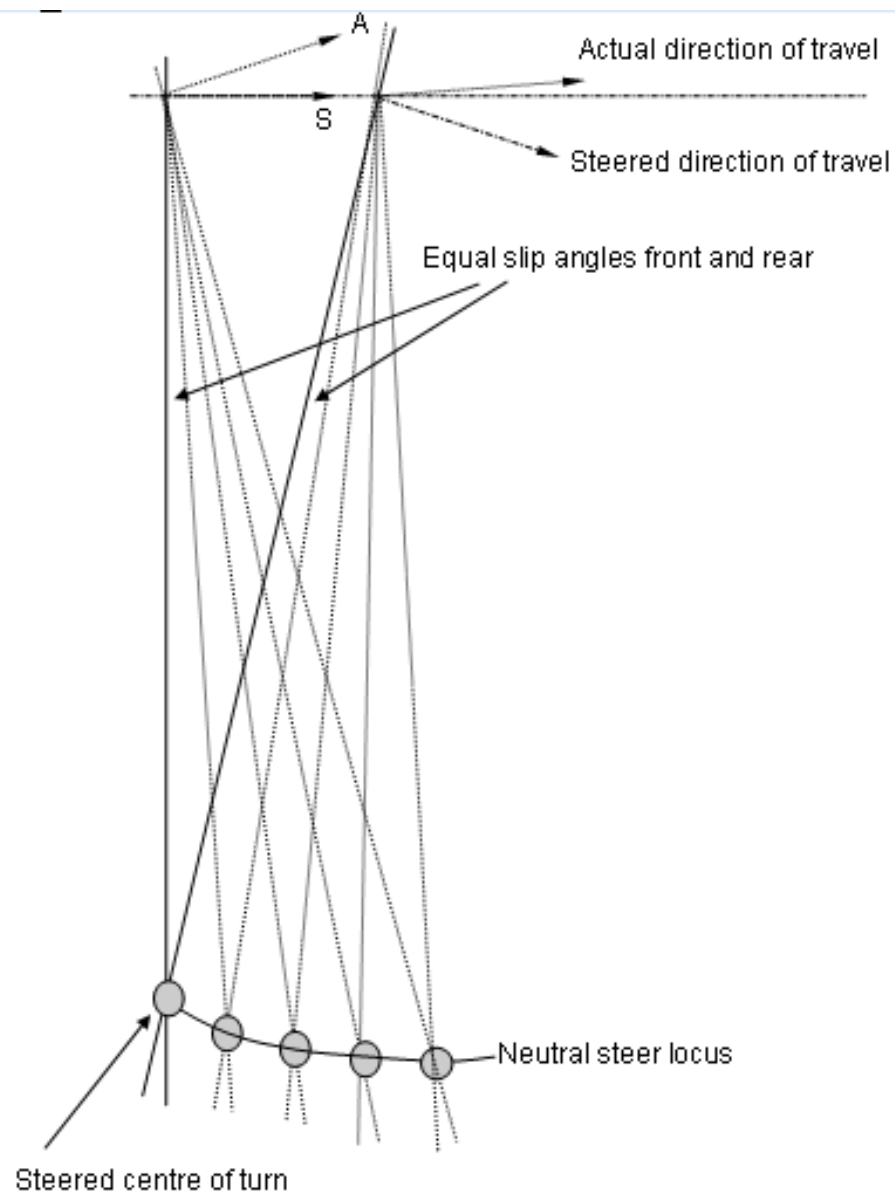
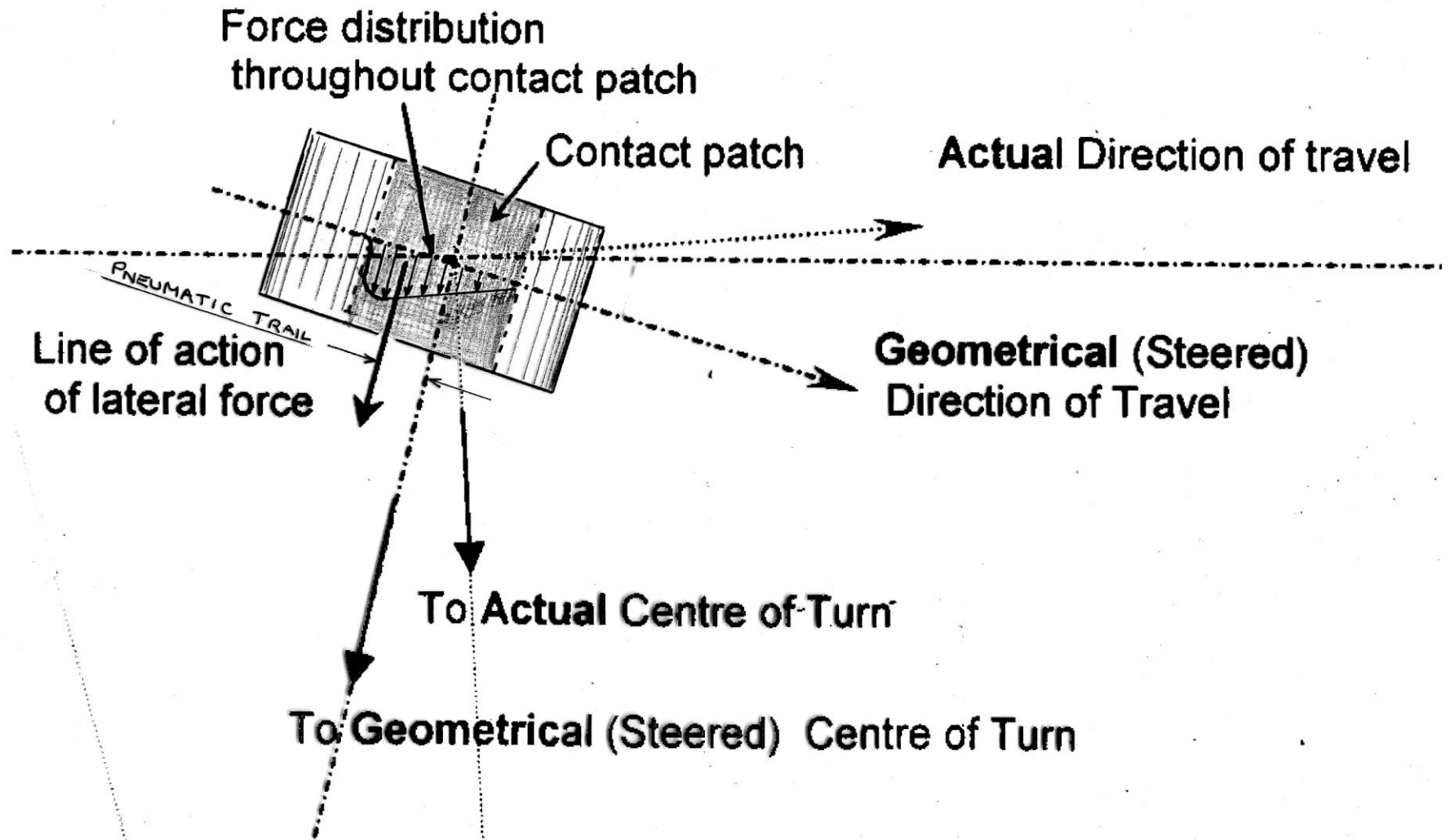




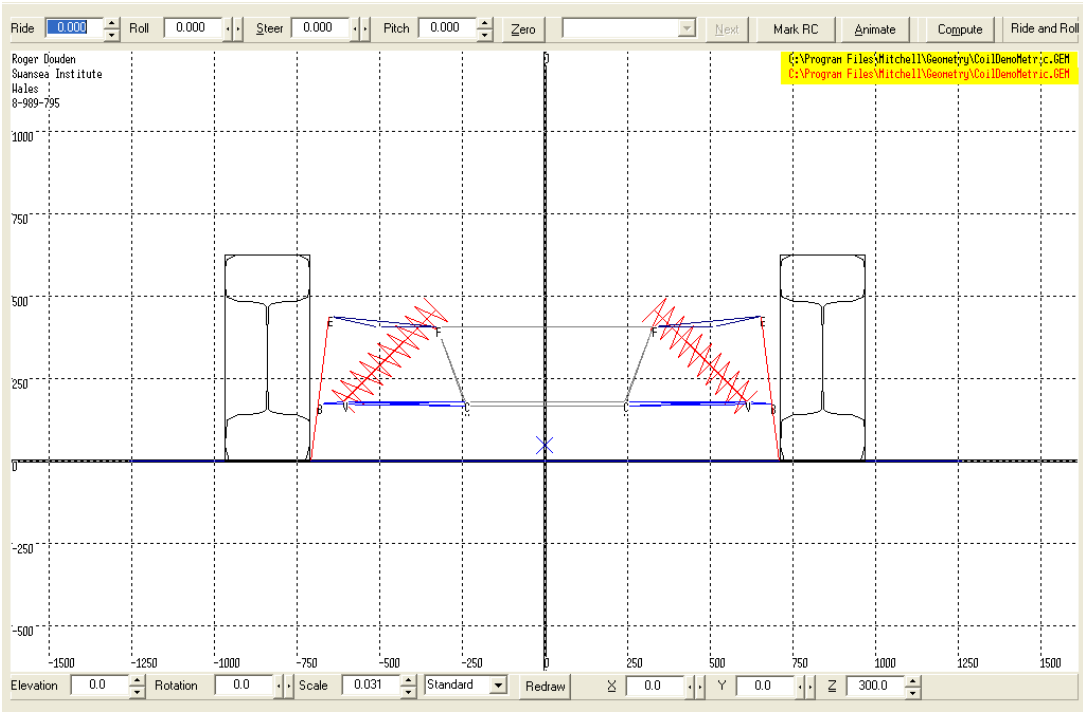








Question 3 **Suspension Behaviour**



In the schematic of the suspension shown above:-

C-V = 312 mm

C-B = 362 mm

The spring is inclined at 45 ° to the vertical

Ks The spring rate is 70 000 N/m (70 N/mm)

Kt Tyre rate is 256 000 N/m (256 N/mm)

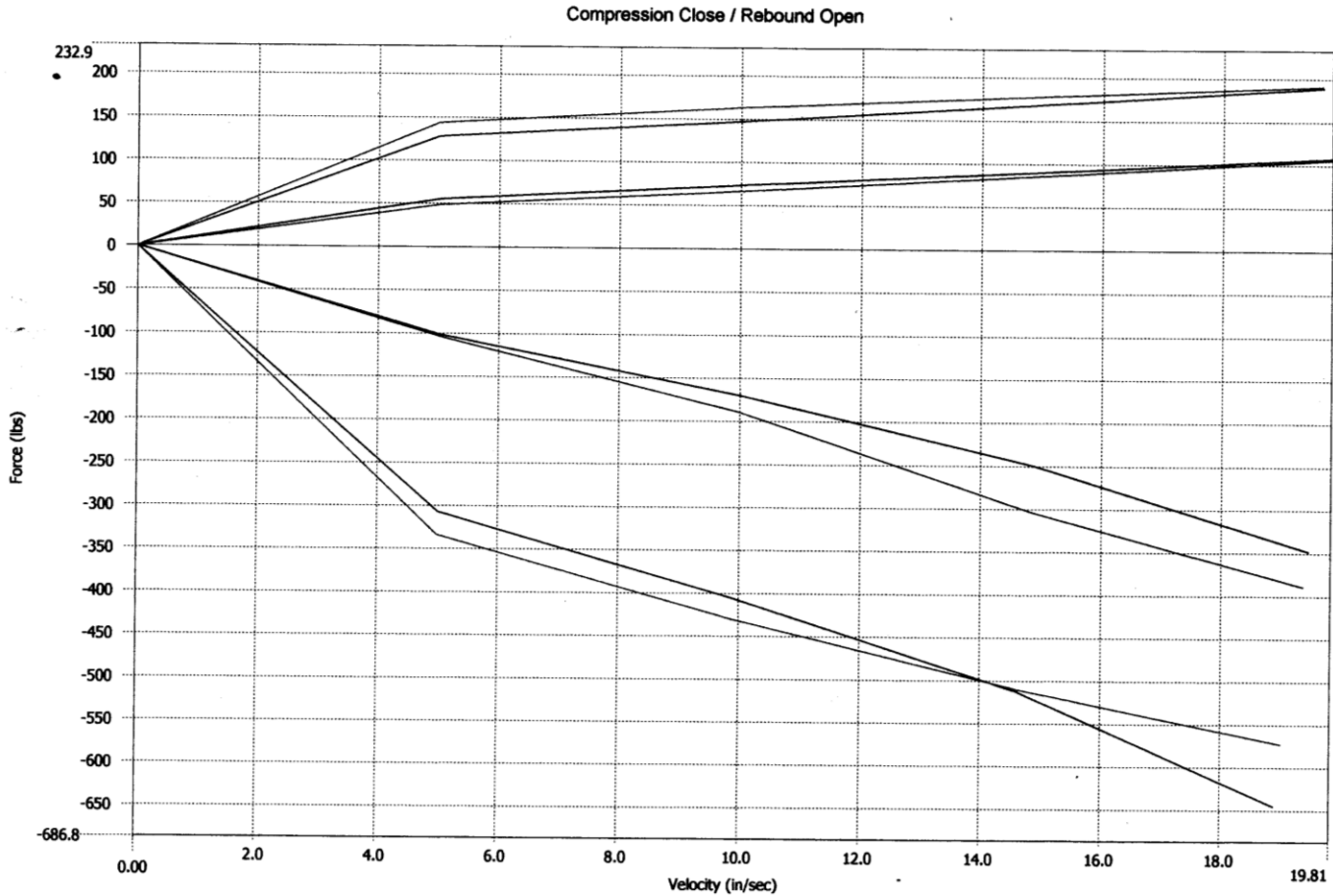
The total corner mass is 200 kg

The unsprung mass is 30 kg

Find :

- a) The suspension leverage
- b) The natural frequency of the unsprung mass
- c) The natural frequency of the sprung mass

SL



Low Speed – Bleed holes in piston

High Speed - Spring or shim controlled orifice in piston

Low speed damping controls roll and pitch of sprung mass