

COLLIDE V1b,A1b Unknown

90(N)
|
180(W)---0(E)
|
270(S)

Vehicle 1

W1(lbs)= 1800.00

μ1b= 0.70
S1b(ft)= 20.00
A1b(deg)= 147.84

μ1a= 0.70
S1a(ft)= 35.00
A1a(deg)= 120.00
VC1a(mph)= 0.00

V1(mph)= 55.72
V1b(mph)= 51.83
V1a(mph)= 27.07

Vehicle 2

W2(lbs)= 2700.00

μ2b= 0.70
S2b(ft)= 0.00
A2b(deg)= 34.00

μ2a= 0.90
S2a(ft)= 10.00
A2a(deg)= 90.00
VC2a(mph)= 0.00

V2(mph)= 24.40
V2b(mph)= 24.40
V2a(mph)= 16.41

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Use this spreadsheet to find vehicle velocities
prior to an accident. The bolded items are the unknowns.
The plain text items are the known values which must be input.

W	Vehicle Weight
μ	Tire/Road Coefficient of Friction
S	Skid Length
A	Vehicle Angle
V	Vehicle Velocity
VC	Vehicle Crush Energy Expressed in mph
1,2	Identifies Vehicle 1 or 2
b,a	b=Before Impact; a=After Impact

