Before:

* M1 = 100g
* M2 = 1g
* V1 = 10m/s
* V2 = 0

After:

* M1\*V1+M2\*V2=M1\*V1’+M2\*V2’
  + 1000=100\*V1’+V2’
* M1\*V1^2+M2\*V2^2=M1\*V1’^2+M2\*V2’^2
  + 10000=100\*V1’^2+V2’^2
  + (1000-100V1’)^2=(10000-100\*V1’^2)
  + 10000\*(10-V1’)^2=10000\*(1-1/100\*V1’^2)
  + 99-20V1’+(101/100)\*V1’^2=0
  + (10-(1/100)\*V2’)^2=V1’^2
  + 100-(1/100)\*V2’^2=V1’^2
  + 100-20/100\*V2’+(1/10000)\*V2’^2=100-(1/100)\*V2’^2
  + (101/10000)\*V2’^2=2/10\*V2’
  + V2’=20000/1010~=20
* M1(V1-V1’)=M2(V2-V2’)
* M1(V1^2-V1’^2)=M2(V2^2-V2’^2)