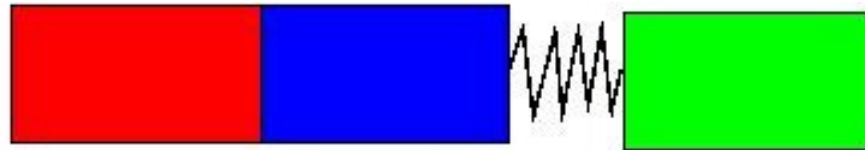


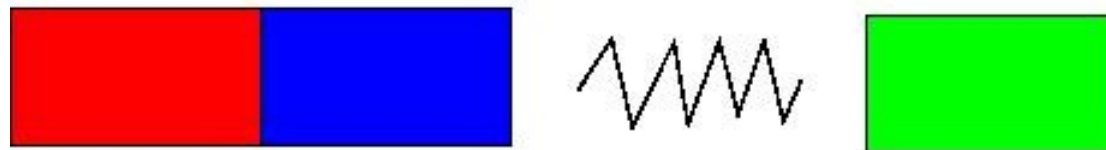
Soda Cans

Soda cans and a spring. The 3 cans have equal mass.



K_1

K_2



Just after the spring is released (=explosion betw. cans):
Momentum is conserved:

$$(2m)v = p_1 = p_2 = m(2v)$$

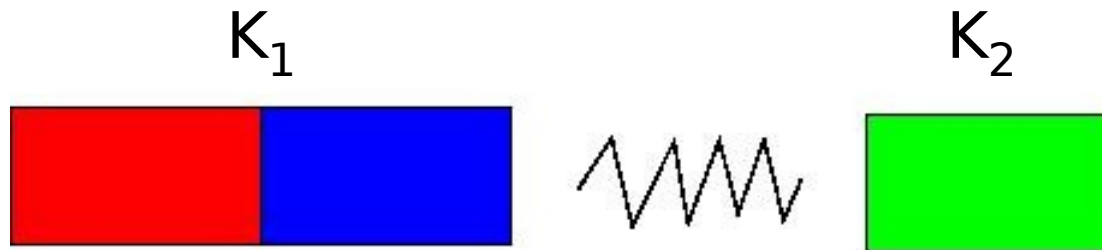
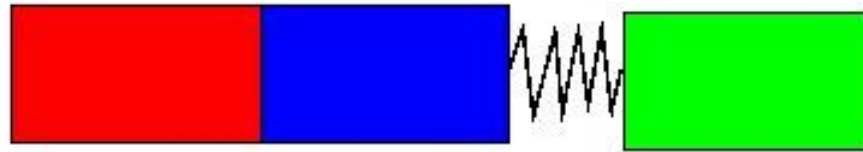
Only way to conserve the momentum.

What about kinetic energies on both sides:

$$\text{General: } K = 0.5 m v^2$$

HITT 1

Soda cans and a spring. The 3 cans have equal mass.



Just after the spring is released: What is the ratio between the kinetic energies of the cans on the left and on the right of the spring: K_1/K_2 ?

A: 1

C: -1

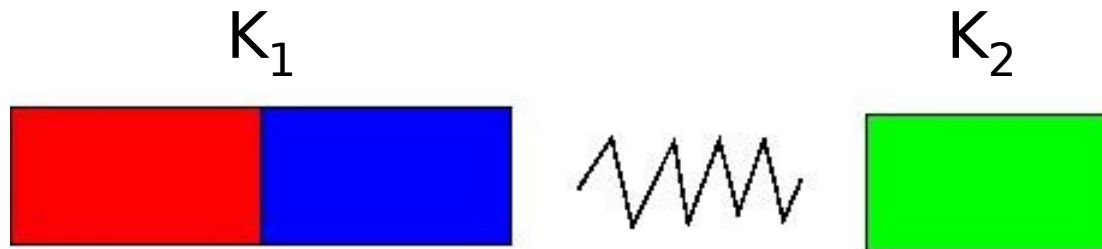
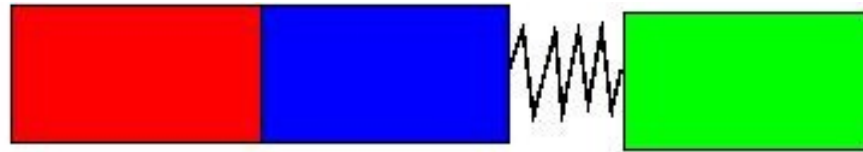
B: 1/2

D: 2

E: 0

HITT 2

Soda cans and a spring. The 3 cans have equal mass.



Just after the spring is released: What is the ratio between the kinetic energies of the cans on the right and on the left of the spring: K_2/K_1 ?

A: 1

C: -1

B: 1/2

D: 2

E: 0