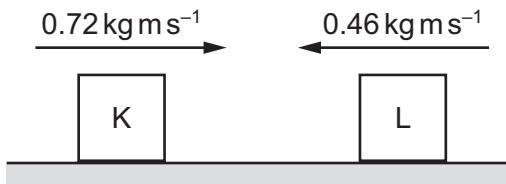


- 11 Two blocks K and L slide towards each other along a horizontal frictionless surface.

The diagram shows the momentum of the two blocks just before they collide.



During the collision, the blocks are in contact with each other for a time of 0.084 s.

After the collision, the blocks separate and block L moves back along its original path with a momentum of  $0.12 \text{ kg m s}^{-1}$ .

What is the magnitude of the average force exerted on block L by block K during the collision?

A  $3.1 \text{ N}$

B  $4.0 \text{ N}$

C  $6.9 \text{ N}$

D  $7.1 \text{ N}$