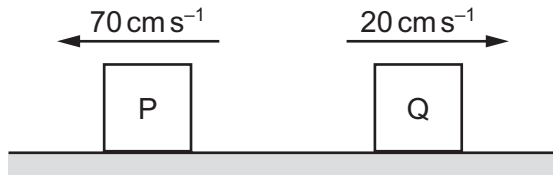


- 12 Two different blocks, P and Q, slide towards each other on a horizontal frictionless surface. The blocks have an elastic collision.

The diagram shows the velocities of the two blocks immediately after the collision.



Which row gives possible velocities of the two blocks immediately before the collision?

| | velocity of P | velocity of Q |
|----------|-------------------------------------|-------------------------------------|
| A | 10 cm s^{-1} to the right | 60 cm s^{-1} to the left |
| B | 50 cm s^{-1} to the right | zero |
| C | 20 cm s^{-1} to the left | 70 cm s^{-1} to the right |
| D | 60 cm s^{-1} to the right | 30 cm s^{-1} to the left |