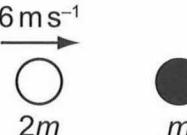
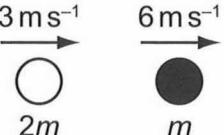
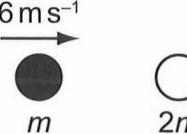
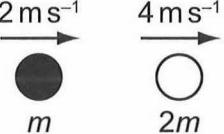
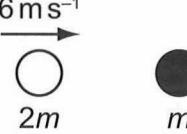
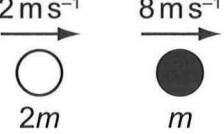
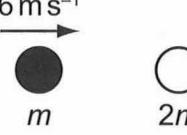
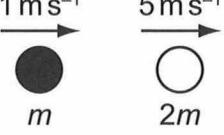


- 5 Two spheres of the same size but different mass make head-on collisions. The black sphere is half the mass of the white sphere. In each collision, one of the masses is initially at rest and both masses move after the collision.

In which situation is the collision perfectly elastic?

	before	after
A	 A white circle labeled $2m$ moves right at 6 ms^{-1} . A black circle labeled m is at rest.	 The white circle moves right at 3 ms^{-1} . The black circle moves right at 6 ms^{-1} .
B	 A black circle labeled m moves right at 6 ms^{-1} . A white circle labeled $2m$ is at rest.	 The black circle moves right at 2 ms^{-1} . The white circle moves right at 4 ms^{-1} .
C	 A white circle labeled $2m$ moves right at 6 ms^{-1} . A black circle labeled m is at rest.	 The white circle moves right at 2 ms^{-1} . The black circle moves right at 8 ms^{-1} .
D	 A black circle labeled m moves right at 6 ms^{-1} . A white circle labeled $2m$ is at rest.	 The black circle moves right at 1 ms^{-1} . The white circle moves right at 5 ms^{-1} .