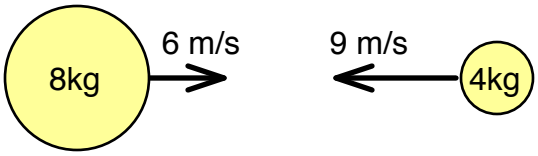
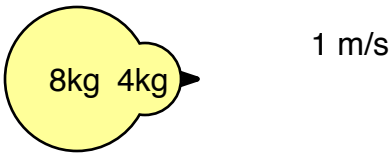
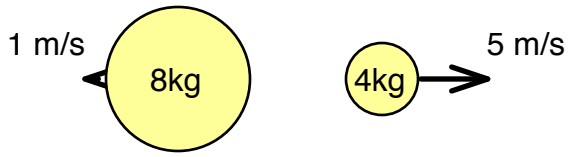
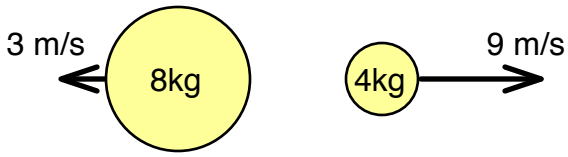
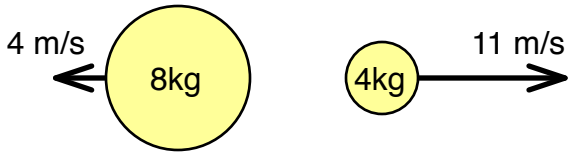
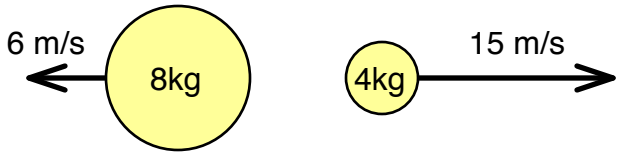
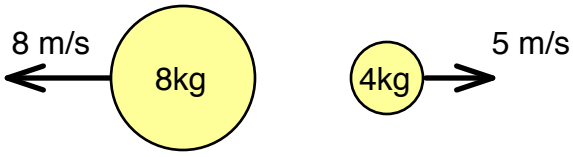
ENERGY IN COLLISIONS 1

The diagrams below represent generic objects before a collision followed by a set of outcomes to be considered. Comment on the outcomes, paying attention to the energy and momentum before and after each collision. Does the outcome describe a completely inelastic, partially inelastic, completely elastic, or impossible collision? Provide a brief explanation to accompany each answer.

before collision	total momentum	total energy
0) 		

after collision	total momentum	total energy
1) 		
2) 		
3) 		
4) 		
5) 		
6) 		

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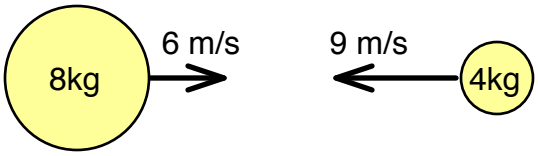
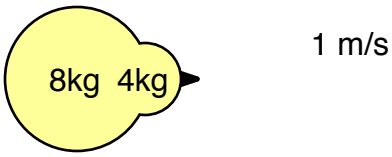
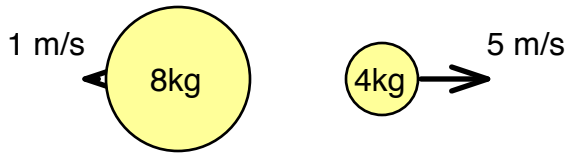
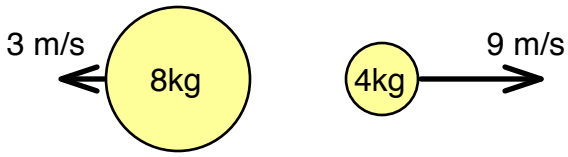
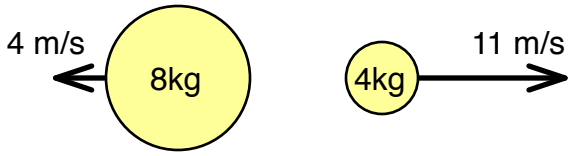
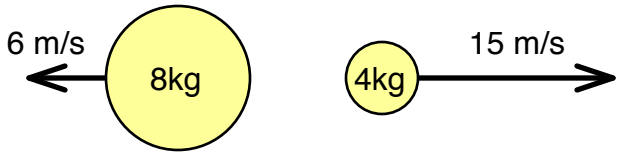
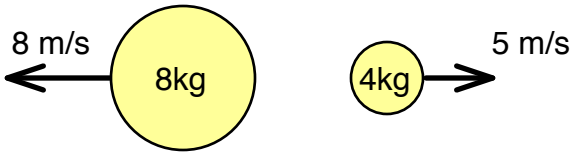
before collision	total momentum	total energy
0) 	+12 kgm/s	306 J

after collision	total momentum	total energy
1) 	+12 kgm/s	6 J
2) 	+12 kgm/s	54 J
3) 	+12 kgm/s	198 J
4) 	+12 kgm/s	306 J
5) 	+12 kgm/s	594 J
6) 	–44 kgm/s	306 J