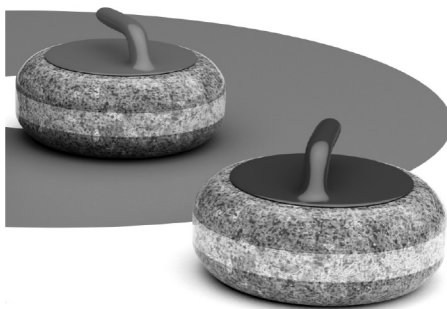


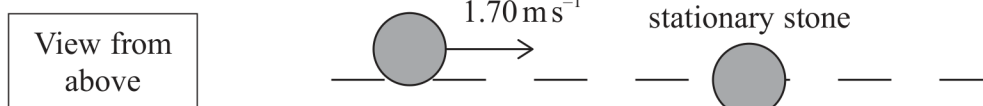
19 Curling is a sport played on ice. Players slide stones made of granite along the ice.

The photograph shows two of the stones. Each stone has a mass of 19.1 kg .

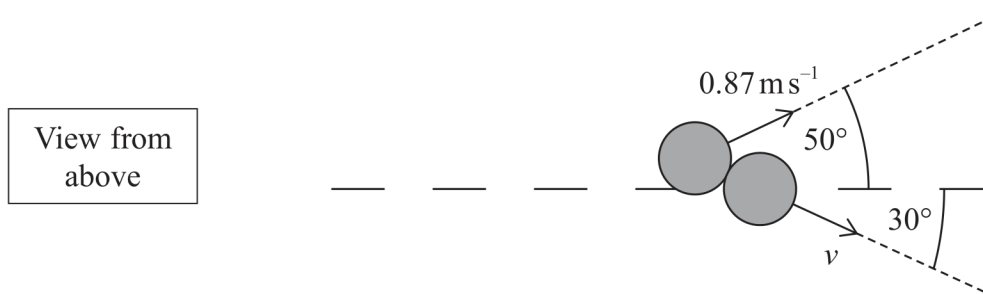


(Source: © MileA/Getty Images)

A player slides a stone at a velocity of 1.70 m s^{-1} towards a stationary stone, as shown below.



The stones collide. After the collision, both stones move off as shown below.



(a) Show that v is about 1.3 m s^{-1} .

(4)

(b) Deduce whether the collision was elastic. Your answer should include a calculation.

(3)

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(Total for Question 19 = 7 marks)