Consider the deflection of a ball by a 45° incline. The ball bounces off horizontally. Assume that it is an elastic collision.

\[ p_i \quad p_f \]

Determine the impulse vector delivered by the incline to the ball.

A) direction \( \uparrow \) and \( \Delta p = p_i \).

B) direction \( \downarrow \) and \( \Delta p = p_i \).

C) direction \( \uparrow \) and \( \Delta p = \sqrt{2} p_i \).

D) direction \( \downarrow \) and \( \Delta p = \sqrt{2} p_i \).
From the sketch, one sees the answer.

Answer C.

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