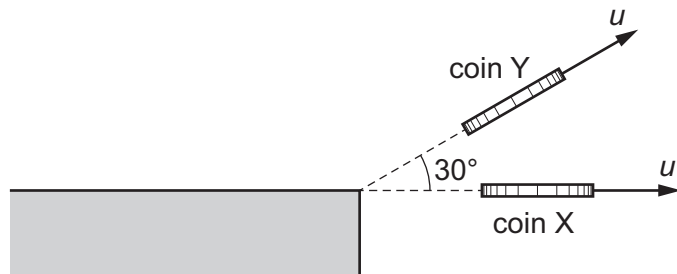


7 Two coins are projected from a horizontal table at the same initial speed  $u$ .

Coin X is projected horizontally.

Coin Y is projected upwards at an angle of  $30^\circ$  to the horizontal.



Both coins hit the horizontal ground without bouncing.

Assume the air resistance on each coin is negligible.

Which statement about the motion of the coins is correct?

- A** Both coins hit the ground with the same speed.
- B** Both coins travel the same vertical distance.
- C** Coin Y hits the ground before coin X.
- D** Coin Y has a smaller vertical acceleration.