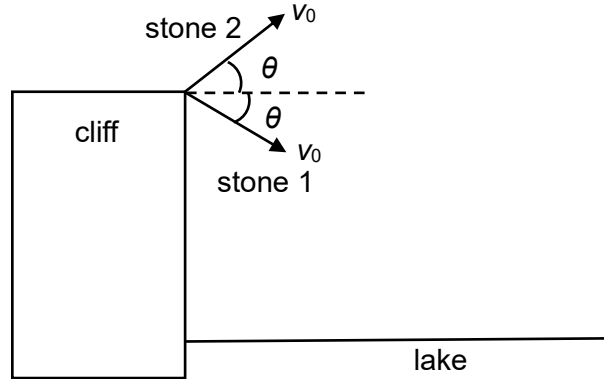


- 4 A student throws two stones from the top of a cliff overlooking a lake.



The stones have identical initial speed  $v_0$ . Stone 1 is thrown at an angle  $\theta$  below the horizontal, while stone 2 is thrown at the same angle  $\theta$  above the horizontal. Air resistance is assumed to be negligible.

Which of the following statements is true?

- A** Both stones strike the water with the same velocity.
- B** Stone 1 strikes the water with a greater speed than stone 2.
- C** Stone 2 strikes the water with a greater speed than stone 1.
- D** Both stones strike the water with the same speed but at a different angle above the water surface.