

## Answer #267

The answer is (c): The maximum coincidence rate will occur when the upper paddle is directly above the lower paddle, as seen (and heard) in an mpeg video by clicking your mouse on the photograph below.



Secondary cosmic rays, such as the cosmic ray muons detected by these scintillators, originate from interaction of primary cosmic rays with atomic nuclei in the upper atmosphere, and move primarily nearly straight down from that point. This means that if the two paddles are directly above each other they will be more likely to have interactions with the same cosmic ray particle, creating more coincidences.

[Question #268](#) is a follow-up to this question.

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For questions and comments regarding the *Question of the Week* contact [Dr. Richard E. Berg](#) by e-mail or using phone number or regular mail address given on the [Lecture-Demonstration Home Page](#).