

## ← Practice quiz on Bayes Theorem and the Binomial Theorem

Quiz pour s'exercer • 25 min

1 / 1 point

9. According to Department of Customs Enforcement Research: 99% of people crossing into the United States are not smugglers.

The majority of all Smugglers at the border (65%) appear nervous and sweaty.

Only 8% of innocent people at the border appear nervous and sweaty.

If someone at the border appears nervous and sweaty, what is the probability that they are a Smuggler?

- ☐ 8.57%
- ☒ 7.58%
- ☐ 92.42%
- ☐ 7.92%

✓ Correct

By Bayes' Theorem, the answer is

$$\frac{(.65)(.01)}{((.65)(.01) + (.08)(.99))}$$

$$= 7.58\%$$