

EXAMEN : BACCALAURÉAT GÉNÉRAL	SESSION 2022
ÉPREUVE : ÉVALUATION SPÉCIFIQUE DE LANGUE EN SECTION EUROPÉENNE	
MATHÉMATIQUES EN LANGUE ANGLAISE	SUJET N° 312

Among natural wine's growing audience, some have surely been attracted because they think it's fashionable. Others are curious about wines made outside the norm, wines that combine a respect for nature with traditional methods of production and that both taste and feel really good.

Regardless of the initial allure, for many the appeal has lasted. Most striking is how popular natural wine seems to be among younger people, the group that the mainstream wine industry has the most difficulty reaching.



But though the number of producers has grown, the production of natural wine is necessarily small and labor intensive.

The ethos of the genre is to farm organically; to ferment the grapes while adding nothing except, perhaps, a little sulfur dioxide, an antioxidant and stabilizer that has long been used in wine; and to remove nothing. It is a hands-on process that cannot be automated or mechanized for efficiency's sake.

Eric Asimov The New York Times Feb. 15, 2022

According to the Robert Parker wine guide, only 10% of the adult population of NY drinks natural wines and 60% of them are under 30.

A statistic survey is conducted by a group of wine merchants in the city by interviewing people in the street. Let N be the event: "The person drinks natural wine" and Y the event: " The person is under 30".

1. Draw a tree diagram and complete it with the given data.
2. Calculate the probability $P(N \cap Y)$ and interpret the result.
3. Adults under the age of 30 represent 15% of the citizens of NY, hence $P(Y)=0.15$.
Calculate the probability $P(\bar{N} \cap Y)$
4. Deduce that the proportion of people under 30 among those who do not drink natural wine is 10%.