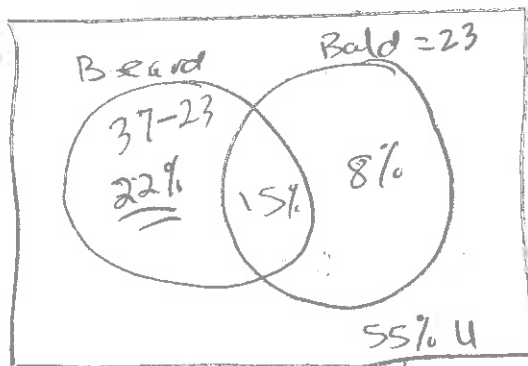


Example 7

The probability that a randomly selected Manitoban man has a beard is 37%. The probability that a randomly selected Manitoban man is bald is 23%. 8% of Manitoban men are bald but do not have a beard.

- Determine the probability that a randomly selected Manitoban man has both a beard and is bald.
- Determine the probability that a randomly selected Manitoban man is not bald but does have a beard.
- Determine the probability that a randomly selected Manitoban man is bald or has a beard.

Use Venn Diagram



$$a) = 15\%$$

$$b) = 22\%$$

$$c) = 45\% \rightarrow 22\% + 15\% + 8\%$$

Example 8

In a local high school, many students study another language. You select one student at random. The probability of that student studying French is 0.62. The probability of that student studying Spanish is 0.43. The probability that the student is studying French or Spanish is 0.81. Calculate the probability of the randomly selected student studying both French and Spanish.

$$F + S - 0.81 = 0.62 + 0.43 - 0.81 = 0.24$$

$$24\%$$

