

[probability]

Strange Brew

Last year, Molson had 40% of the beer market, Labatt 40% and Bob's Brew 20% (i.e. the probability that a person will buy a Molson beer is 0.4).

A market survey this year finds Molson has kept 60% of its share of the market (i.e. the probability a person having bought Molson last year is still buying Molson this year is 0.6); but Molson lost 30% to Labatt (i.e. the probability of a person having bought Molson last year but is now buying Labatt this year is 0.3); and Molson lost 10% to Bob's Brew.

Labatt kept 70% of its drinkers but lost 20% to Molson and 10% to Bob's Brew.

Bob's Brew kept 50% of its drinkers but lost 20% to Molson and 30% to Labatt.

Find the market share of each of the breweries (i.e. the probability a drinker is buying Molson, the probability a drinker is buying Labatt and the probability a drinker is buying Bob's Brew three years from now).

