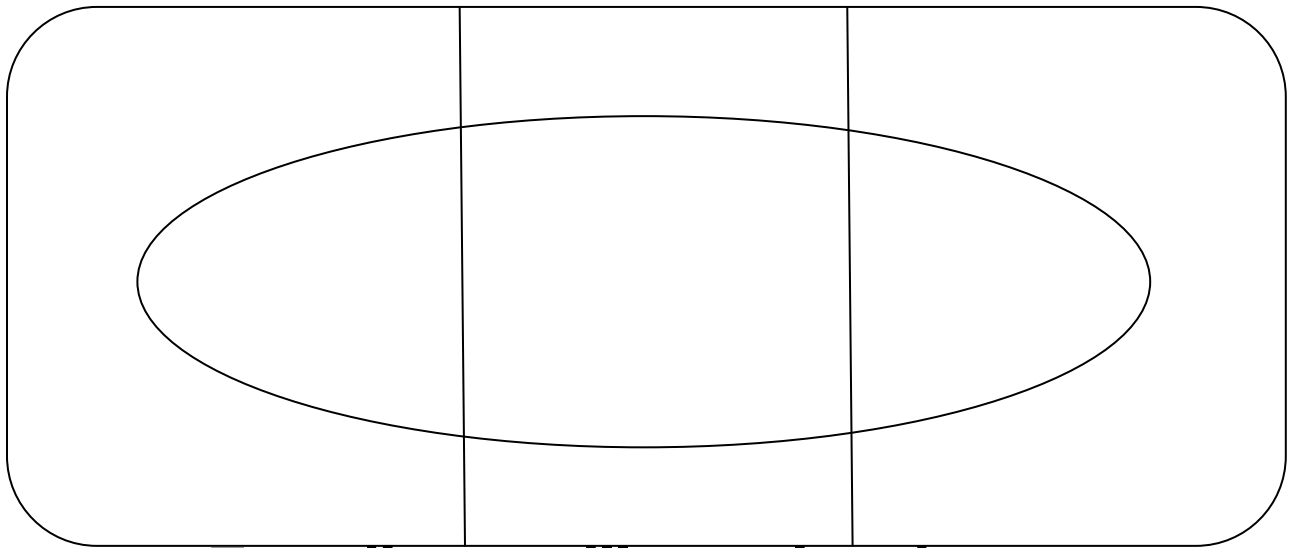


7.6 Bayes Theorem

Ex. 1 – A store stocks light bulbs from 3 suppliers. Suppliers A, B, and C supply 10%, 20%, and 70% of the bulbs respectively. 1% of A, 3% of B and 4% of company C's bulbs are defective. If a bulb is selected at random and found to be defective, what is the probability that it came from supplier B?



a. Tree diagram illustrating the probabilities of events A, B, C, and D:

b. $P(D)$

c. $P(A | D)$

d. $P(D^c)$

e. $P(B | D^c)$