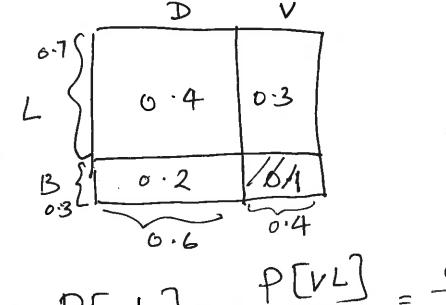
[1] Calls are classified either as voice (V) or data (D). They are also classified as brief (B) or long (L). It is known that: (a) 40% of calls are V, (b) 70% of calls are L, and (c) 80% of calls are either V or L. Find the probability of finding a voice call among long calls. Are brief and data calls independent? (Show your work)



(a) 
$$P[VL] = \frac{P[VL]}{P[L]} = \frac{0.3}{0.7} = \frac{3}{7}$$

[2] In a group of students, 60% major in CS while the remaining 40% major in Math. Among CS students, 20% are part-time time students. Similarly, among Math students, 10% are part-time students. If a randomly selected student from the gathering is a part-time student, find the probability that he/she majors in Math.