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Assignment 12

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Problem 1. Learning Bayesian belief network parameters

$$P(G) = \frac{N_{G=1}}{N} = \frac{14}{20} = 0.7$$

$$P(L|B=1) = \frac{N_{L=1,B=1}}{N_{B=1}} = \frac{12}{17} = 0.706$$

$$P(L|B=0) = \frac{N_{L=1,B=0}}{N_{B=0}} = \frac{1}{3} = 0.333$$

$$P(I|B=1) = \frac{N_{I=1,B=1}}{N_{B=1}} = \frac{13}{17} = 0.765$$

$$P(E|I=1,G=1) = \frac{N_{E=1,I=1,G=1}}{N_{I=1,G=1}} = \frac{8}{10} = 0.8$$

$$P(E|I=1,G=0) = \frac{N_{E=1,I=1,G=0}}{N_{I=1,G=0}} = \frac{3}{4} = 0.75$$