

Four hundred students have been classified according to their current academic status and sex. The results are given in the table below:

	Freshman	Sophomore	Junior	Senior
Male	20	30	70	60
Female	50	50	80	40

- a) What proportion of the students are female?
- b) What proportion of the students are not juniors?
- c) If a student is selected at random from this group, what is the probability the student is a senior and male?
- d) What is the probability that a randomly selected male is not a freshman?
- e) What is the probability that a randomly selected student is a junior or female?
- f) What is the probability that a randomly selected junior is female?
- g) What is the probability that a randomly selected male is either a freshman or sophomore?
- h) What is the probability that a randomly selected student is not a senior and not female?
- i) Are the events F(Female) and J(Junior) mutually exclusive? Thoroughly justify your answer
- j) Are the events F(Female) and J(Junior) independent? Thoroughly justify your answer