HW C - PROBABILITY NOTATION EXERCISES

Due: Thursday, November 1 (at the beginning of class on the provided answer sheet)

(15 points)
A group of student athletes: gymnasts ($G$), swimmers ($S$), wrestlers ($W$), and runners ($R$) is surveyed concerning the classes they are taking (biology ($B$), kinesiology ($K$), calculus ($C$)).

For the following, write the correct mathematical notation of the probability you are finding (using the variables above), on the provided answer sheet, as you will not be able to determine numerical answers.

(a) What is the probability that a randomly selected wrestler is taking kinesiology?

(b) What is the probability that a randomly selected student is a gymnast, given that he/she is taking calculus?

(c) What is the probability that a randomly selected student is a swimmer, but is not taking biology?

(d) What is the probability that a randomly selected biology student is also a calculus student?

(e) What is the probability that a randomly selected student is a runner taking calculus?

(f) What is the probability that a randomly selected kinesiology student is a gymnast?

(g) What is the probability that a randomly selected student is taking biology, if it is known that the student is a wrestler or a runner?

(h) What is the probability that a randomly selected kinesiology and calculus student is a swimmer?

(i) What is the probability that a randomly selected runner is taking calculus or kinesiology?

(j) What is the probability that a randomly selected student is a gymnast or is a biology student?

(k) What is the probability that a randomly selected gymnast is taking all three classes?

(l) What is the probability that a randomly selected wrestler or swimmer is taking biology and calculus?

(m) What is the probability that a randomly selected calculus student is also taking kinesiology and biology?

(n) What is the probability that a randomly selected swimmer is not taking any of these classes?

(o) What is the probability that a randomly selected student is taking exactly one of these classes?