STA230
June 1 Demo/ Practice problems

All the problems are ungraded.

Pr. 1 Pitman 4.2.1
Pr. 2 Pitman 4.2.3
Pr. 3 Pitman 4.2.5
Pr. 4 Pitman 4.2.10 (a)(b)

Pr. 5 Suppose calls are coming into a telephone exchange at an average rate of 3 per minute, according to a Poisson arrival process. Let us calculate:

a) The probability that the first call after t = 0 takes more than 2 minutes to arrive.
b) c) The probability that no calls arrive between t = 0 and t = 2 and at most four calls arrive between t = 2 and t = 3.
c) The probability that the first call after t = 0 takes less than 20 seconds to arrive, and the waiting time between the first and second calls is more than 3 minutes.
d) The probability that the fifth call takes more than 2 minutes to arrive.