

MATH 233
Fall 2018
Quiz #2 B

Duration: 50 minutes.

Remark: Show your thinking/work. Do not just write a number as a result.

1. A cell divides into two in every minute. Assume we have a single cell in a laboratory tube.
 - Find a **recurrence relation** for the number of cells after n minutes.
 - What is/are the **initial condition(s)**?
 - What is the number of cells after an hour?

2. Two fair dice and a fair coin are tossed.
 - a) What is the **experiment**?
 - b) What is the **sample space**?
 - c) What is the **size** of the sample space?
 - d) What is the probability that a head occurs? (Describe the event E_H)
 - e) What is the probability that a 6 occurs? (Describe the event E_6)
 - f) What is the probability that the total number on the dice is more than the number of heads? (Describe the event E_{more})