Name:
Stat 101
Summer 2023 Session 1 Dr. Lily Yen

Number:
Signature:
Score: $\qquad$

Problem 1: In your sock drawer you have four blue, five grey, and three black socks. Half asleep one morning you grab two socks at random and put them on. Draw a probability tree of grabbing two socks without replacement from the drawer. Then for each case below, find the probability you end up wearing
a. no grey socks

b. at least one black sock
c. a yellow sock

d. matching socks


## Score:

Problem 2: The table below shows the distribution of books on a bookcase based on whether they are fiction or non-fiction and hardcover or paperback.

|  | Hardcover | Paperback | Total |
| :--- | :---: | :---: | :---: |
| Fiction | 13 | 59 | 72 |
| Non-fiction | 15 | 8 | 23 |
| Total | 28 | 67 | 95 |

Find the probability of drawing a hardcover book first then a paperback fiction book second when drawing without replacement.

