

Quiz Five
Show all your work

Name: _____
Number: _____
Signature: _____
Score: ____/10

Problem 1: Answer each question to two decimal place accuracy when appropriate. If an exact answer is possible expressed as a fraction, you may leave your answer as a fraction.

- a. If Mei draws a single card from a deck of 52 cards, what is the probability that she draws a spade?
- b. When you flip a fair coin twice, what is the probability of getting only one tail?
- c. When Katharina rolls two cubic dice, what is the probability of getting a total of 6?

Score: ____/3

Problem 2: The morning after Halloween, Dad constructed a spinner with six equal sectors, each labelled with a different snack: Aero, HiChew, Mars Bar, Chips, Juice, Twix, for Hamlet and Samlette. Assume that the pointer never lies on a border, answer the following questions.

- a. Find the probability of getting a Juice or a Mars Bar after one spin.
- b. Find the probability of getting no Chips after three spins.

Score: ____/3

Problem 3: Assume that 15 % of international visitors arriving at the Vancouver International Airport are sick with the latest variant of Covid. Suppose a Covid test correctly identifies a visitor sick with Covid 95 % of the time. Also assume that the test falsely identifies a healthy visitor as sick with Covid 7 % of the time. If an international visitor tests negative, what is the probability that the visitor is actually sick with Covid?

Draw a probability tree as part of your steps.

Score: ____/4