Problem of the Week
Problem B
A Pocketful of Coins

Dakarai has a some Canadian coins in his pocket: one nickel (worth $0.05), one dime (worth $0.10), one quarter (worth $0.25), one loonie (worth $1.00), and one toonie (worth $2.00).

(a) Suppose he reaches into his pocket and pulls out one coin at random.

    (i) What is the probability that he will pull out

- a nickel?
- a quarter?
- a toonie?

    (ii) What is the probability that the total value of the coins remaining in his pocket is

- less than $1.00?
- greater than $1.35?
- less than $2.00?

(b) Suppose Dakarai reaches into his pocket and pulls out two coins at random. Which is greater, the probability that the coins in his hand have a value of $0.35, or the probability that the coins in his hand have a value of $3.00?