In-class, Week 4, day 2

Section 2.5, Problem 10: Give an example of two uncountable sets A and B such that $A - B$ is

a. finite

b. countably infinite

c. uncountable

Section 3.1, Problem 54: Use the greedy algorithm in which the largest possible coin denomination is used at each step to pay down the total to make change using quarters (25 cents), dimes (10 cents), and pennies (1 cent), but no nickles to make change for

a. 87 cents

b. 49 cents

c. 99 cents

d. 33 cents

For which of these amounts does the greedy algorithm use the fewest coins possible, within the limitations of the denominations above?