

MA 202 Worksheet 10

Due: Tuesday, April 16

You are encouraged to work together on these problems in teams of three or four people (be sure to list all of the members of your team on your solutions). In addition, **each** of you should provide me with a list of three problems from this set that you are willing to present in class.

From the text, complete the following problems:

§9.1 – 24, 25

§9.3 – 7, 8, 20, 23, 27, 29, 30.

1. I once found a book which described the following strategy for winning at roulette:
 - Start with a bet of one dollar, placed on your choice of “red” or “black”.
 - If you lose, double your bet amount and bet again.
 - If you win, the winnings will cover any losses in this betting cycle, leaving one dollar as profit. Reset your betting amount to one dollar.
 - Continue until you amass sufficient wealth for your needs.

For example, consider the following sequence of events:

Bet	Result
\$1	Win
\$1	Lose
\$2	Lose
\$4	Lose
\$8	Win

After the first round, we’ve won one (1) US dollar. Then we’ve played an additional four rounds before winning again; the result of those four rounds is that we lose $1 + 2 + 4 = 7$ dollars and win 8 dollars, leaving another profit of one dollar.

Explain why we should not fly to Las Vegas immediately and get rich!