Exercises

1.1 Design a channel coding scheme to detect two or less errors for the message source \{00, 10, 01, 11\}. Can you find one of the best schemes in terms of information transmission speed?

1.2 Design a channel coding scheme to correct two or less errors for the message source \{00, 10, 01, 11\}. Can you find one of the best schemes in terms of information transmission speed?

1.3 Design a channel coding scheme to detect one error for the message source \{000, 100, 010, 001, 110, 101, 011, 111\}. Can you find one of the best schemes in terms of information transmission speed?

1.4 Design a channel coding scheme to correct one error for the message source \{000, 100, 010, 001, 110, 101, 011, 111\}. Can you find one of the best schemes in terms of information transmission speed?

NO LATE HOMEWORK WILL BE ACCEPTED.