Assignment 7
Unit 8 – Week 7
Due on 4/16/16, 20:00 EST

Week 1

1. Consider a source with 6 symbols of equal probability, what is the average length of the Huffman code for this source?

2. A source has 4 symbols and 2 of them have equal probability. What is the minimum possible average length for any code for this source when coding for arbitrary length block lengths?

3. A source has 5 symbols and 1 of them has probability 0.2. What is the minimum possible average length for any code for this source when coding for arbitrary length block lengths?

4. A source has 3 symbols and 2 of them have equal probability. What is the minimum possible average length for any code for this source when coding for arbitrary length block lengths?

5. A source has 2 symbols and 1 of them has probability 0.5. What is the minimum possible average length for any code for this source when coding for arbitrary length block lengths?

6. Consider a source with 4 symbols of equal probability, what is the maximum average length of the Huffman code for this source?

Week 2

7. Consider a source with 8 symbols of equal probability, what is the maximum average length of the Huffman code for this source?

8. Consider a source with 8 symbols of equal probability, what is the average length of the Huffman code for this source?

9. Consider a source with 8 symbols of equal probability, what is the minimum possible average length for any code for this source when coding for arbitrary length block lengths?

10. Consider a source with 8 symbols of equal probability, what is the minimum possible average length for any code for this source when coding for arbitrary length block lengths?

11. Consider a source with 8 symbols of equal probability, what is the minimum possible average length for any code for this source when coding for arbitrary length block lengths?

12. Consider a source with 8 symbols of equal probability, what is the minimum possible average length for any code for this source when coding for arbitrary length block lengths?