1. Convert the following as indicated.
   (a) Convert $[61502]_8$ to decimal.
   (b) Convert $[55555]_6$ to octal.
   (c) Convert $[22233]_{10}$ to binary
   (d) Convert $[54545]_7$ to base 6.

2. Add $[11111111]_2 + [1]_2$ and convert the result to decimal representation. Notice that this verifies that $[11111111]_2 = (2^8 - 1)_{10}$. Generalize this observation to make a conjecture about what the decimal representation of $[11\cdots11]_2$ is.

3. Write down the following integers in base 9:
   (a) 2687
   (b) 2
   (c) 204
   (d) 777

4. What is $[32132]_5 + [22]_5$?

5. Make a truth table for $(p \lor \neg (p \lor q)) \land \neg (q \land \neg r)$

6. Let $r = \text{“she registered to vote”}$ and $v = \text{“she voted”}$. Write the following statement in propositional/symbolic form: She registered to vote but she did not vote.