

CS-150 Worksheet 3 Gates and Circuits

This worksheet is about getting familiar with logic gates and circuits.

□ Task 3.1 – Circuit Diagrams

- Draw the following circuit diagrams (note there are different notations!):

i. $(A \text{ AND } B) \text{ OR } C$

ii. $AB + C$

iii. $(A + BC) + D'$

iv. $(A \text{ XOR } B) \text{ NAND } C$

v. $(A \text{ OR } B) \text{ AND } (C \text{ NOR } A)$

□ Task 3.2 – Truth Tables

- Write the truth table for each of the above expressions.

□ Task 3.3 – Boolean Expressions

- Give the boolean expressions for each of the following:

