## MAT 511

## Homework for week 1

(1) Section 1.1:

2 ac
3 bfj
6 df
10 abe
(2) Section 1.2:

1 gh
2 gh
5 de
8 adg
(3) Prove the distributive law:
$A \wedge(B \vee C)$ is equivalent to $(A \wedge B) \vee(A \wedge C)$
(4) Define the new binary logical operation nand by $A$ nand $B=\sim(A \wedge B)$.

Write the truth tables for:
$A$ nand $A$
$(A$ nand $B)$ nand $(A$ nand $B)$

