

1. Homework

Due **9/8/04** before class

All exercises on this homework are exercises from the textbook. Please refer to the corresponding sections in the textbook.

- 1.1
 - (2 points) 10 a,c,e,f
 - (2 points) 22 c
It is helpful to express the propositions as logical formulas first.
 - (2 points) 24 b,d
- 1.2
 - (3 points) 16
 - a) Using truth tables
 - b) By establishing a sequence of logical equivalences, using tables 5,6,7 (and of course not the equivalence that we want to show!)
 - c) How is $\neg q \rightarrow \neg p$ called (with respect to $p \rightarrow q$)?
 - (1 point) 54 a
Justify your answer shortly.
- 1.3
 - (2 points) 6 a,b,c,d
 - (1.5 points) 10 a,b,d
 - (1.5 points) 16 a,b,d
Justify your answer shortly.
 - (2 points) 22 a,c
 - (3 points) 30 a,b
 - (1 point) 48 a,b
Justify your answer shortly.
- 1.4
 - (3 points) 10 a,c,d
 - (1 point) 20 a
 - (2 points) 22
 - (1 point) 28 a,b
Justify your answer shortly.
 - (1 point) 32 a