

## Exercise 3

### Negate (verbally and formally)

- a) I'll walk or sing.
- b) John is not a Sparta or Slavia fan.
- c) If it's Wednesday, we have a meeting.
- d) Only when I'm writing the program do I think it runs properly.
- e) The program is not malfunctioning when it's written properly.
- f) If I don't spend enough time on the solution, the result is uncertain and I have to start again.
- g) I can program in Java, but I don't know C++ syntax.
- h) Peter believes in the future of IT, Tomas shakes his heads.
- i) If you get good results, you won't have a problem at school and you'll be fine.

*2) Prove that the following argument is valid; first apply the truth-table method for direct as well as indirect proof, then make an indirect proof without a truth table.*

If I am at home then I play a piano.

I don't play a piano.

Hence, I am not at home.