

## EXAM 1 (duration: 30 minutes)

DatZ1143: Discrete mathematics for computing

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Name and surname:

Student number:

Date:

**Questions** (There are two questions and each is 5 points.)

1. In the following table, 10 sentences are given. Please write in the left column

- **NOT** if the sentence on the right column is not a proposition,
- **True** if the sentence on the right column is a True proposition, and,
- **False** if the sentence on the right column is a False proposition.

The correct answer for each row is 0.5 point.

NOT/True/False	Sentence
	$3 \times 4 = 11$ .
	Solve the equation $x^2 = 9$ .
	$x = -3$ is the only solution for the equation $x^2 = 9$ .
	$x^2 - 9 = 0$ .
	The square of an even integer is also even.
	There is no odd integer such that its square is even.
	Find an odd integer such that its square is even.
	This exam takes place on Thursday.
	Is Rīga the capital of Latvia?
	$2 + 3 = 5$ .

2) Construct a truth table for the compound proposition  $(p \rightarrow q) \wedge (\neg p \rightarrow q)$ .  
(5 points)