Last name												
First name			Crede									
Group	Grade											
				1								
	Algorithmics			2								
	Undergraduate $1^{st}$ ye	3										
	${f Midterm}\ \#2$ (C	(2)		4								
	November 201	9		5								
	Answer Sneet:	5		6								
				7								

Answers 1 (A little coursework... - 4 points)

1. Using the hierarchical order number as label for the nodes, draw the tree B:

2.	The internal path length of the tree B is:
3.	The externe average depth of the tree B is:

### Answers 2 (BST: search path -2 points)

Are the following sequences valid?

	yes	no
50 - 15 - 48 - 22 - 46 - 42		
48 - 15 - 45 - 22 - 47 - 42		
15 - 22 - 45 - 43 - 35 - 42		
22 - 45 - 43 - 15 - 35 - 42		

### Answers 3 (Transpose - 3 points)

#### Specifications:

The function transpose(A) builds and returns the transposed matrix of the non empty matrix A.

## Answers 4 (Vertical Symmetry – 5 points)

## Specifications:

The function  $v_symmetric(M)$  tests whether the matrix M has a horizontal axis of symmetry (vertical symmetry).

#### Answers 5 (Maximum Path Sum – 2 points)

### Specifications:

The function maxpath(B) returns the maximum value of the branches of the binary tree B (0 if the tree is empty).

## Answers 6 (Full? - 3 points)

#### Specifications:

The function full(B) tests if the binary tree B is full.

# Answers 7 (Mystery - 2 points)

>>> what(B)

3. 4.