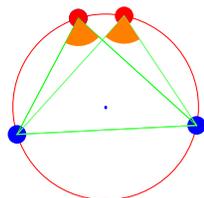# Lecture 3: Quiz

Name:

Problem 1

If the triangle in Thales theorem is a right angle triangle. What can you say about the center of the circumscribed circle in that case?

The center of the circle lies on one of the sides of the triangle.	
The center of the circle coincides with the centroid of the triangle.	
The center of the circle coincides with one of the points of the triangle.	

Problem 2

What is Morley's miracle?

- If three unit circles hit in a point, then the circumscribed circle of the intersection points has the same radius.

- The angle tri-sectors in an arbitrary triangle intersect in a equilateral triangle.

- In a right triangle, the height intersects the hypotenuse into two segments of length a, b satisfying $ab = h^2$, where h is the height.

Problem 3

In ancient times, the birth place is added to the name of the person. The following Greek mathematicians are known with their names:
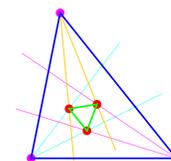
Euclid of	
Thales of	
Pythagoras of	
Hippocrates of	

Miletus	
Samos	
Chios	
Alexandria	

Problem 3

In which time period was Morley's theorem discovered?

a) around 2000	
b) around 1900	
c) around 1800	
d) around 1700	

Problem 4

Match the situations as good as you can. We called this the four miracles.

A   B

C   D
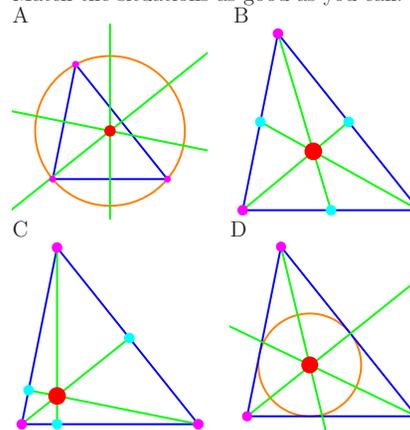
The intersection of lines through mid points	
The intersection of angular bisectors	
The intersection of line bisectors	
The intersection of altitudes	

Problem 5

Which formula appeared in the proof of Hippocrates theorem?
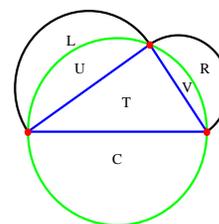
a) $L + R = T$	
b) $U + V = T$	
c) $L + R = U + V$	
d) $|L - R| = T$	
e) $|U - V| = T$	