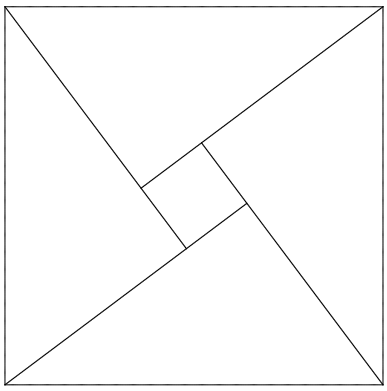
İzmir University of Economics, Department of Mathematics

Math 205 Analytic Geometry	**Quiz 1**	17.10.2005
Name	**Student No.**	**Sign**

You will not get any points if your answer is wrong, that is no points to your explanations if your answer is wrong. And of course no points to a correct answer if your explanation or proof is not correct or clear.

YOU must write GOOD Mathematics

1. Below is square of side length c partitioned with a square of side length $a-b$ in the center. Prove the Pythagorean Theorem using the figure.



2. Let $(r^2-s^2, 2rs, r^2+s^2)$, $r \geqslant s > 0$ be a Pythagorean triple. Find its corresponding rational point on the unit circle.
Solution:

3. *Use parametric equation of a line* to find the midpoint of the points $A=(x_0,y_0)$, $B=(x_1,y_1)$
Solution: