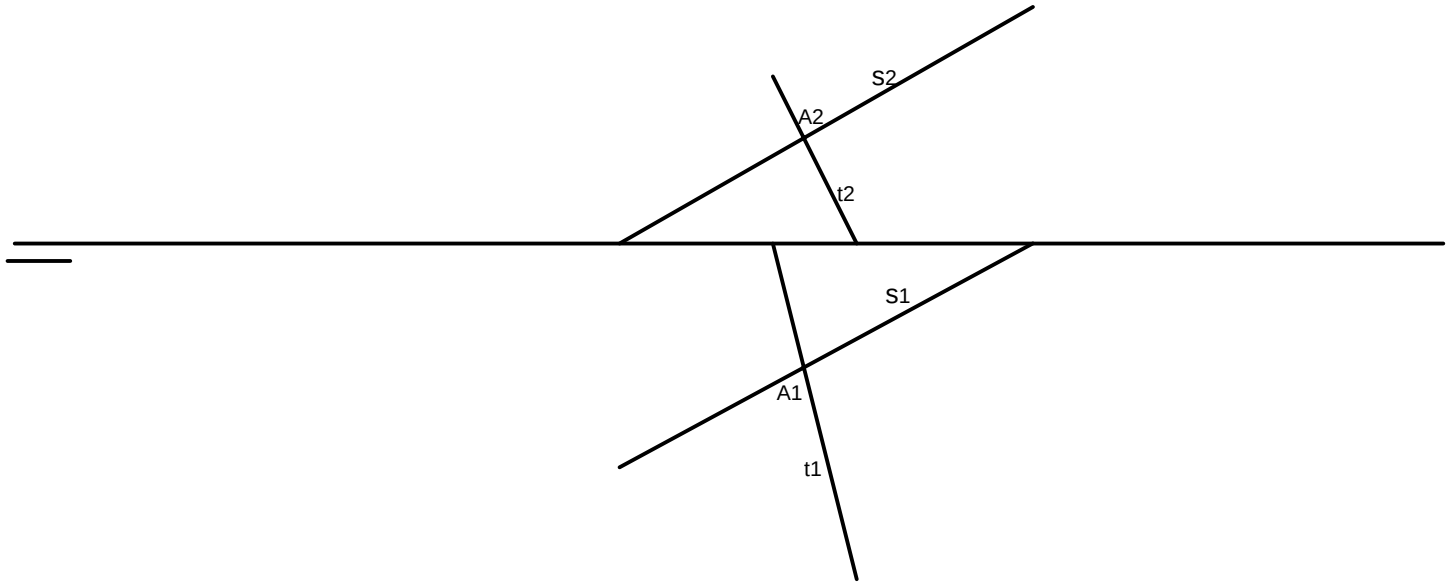
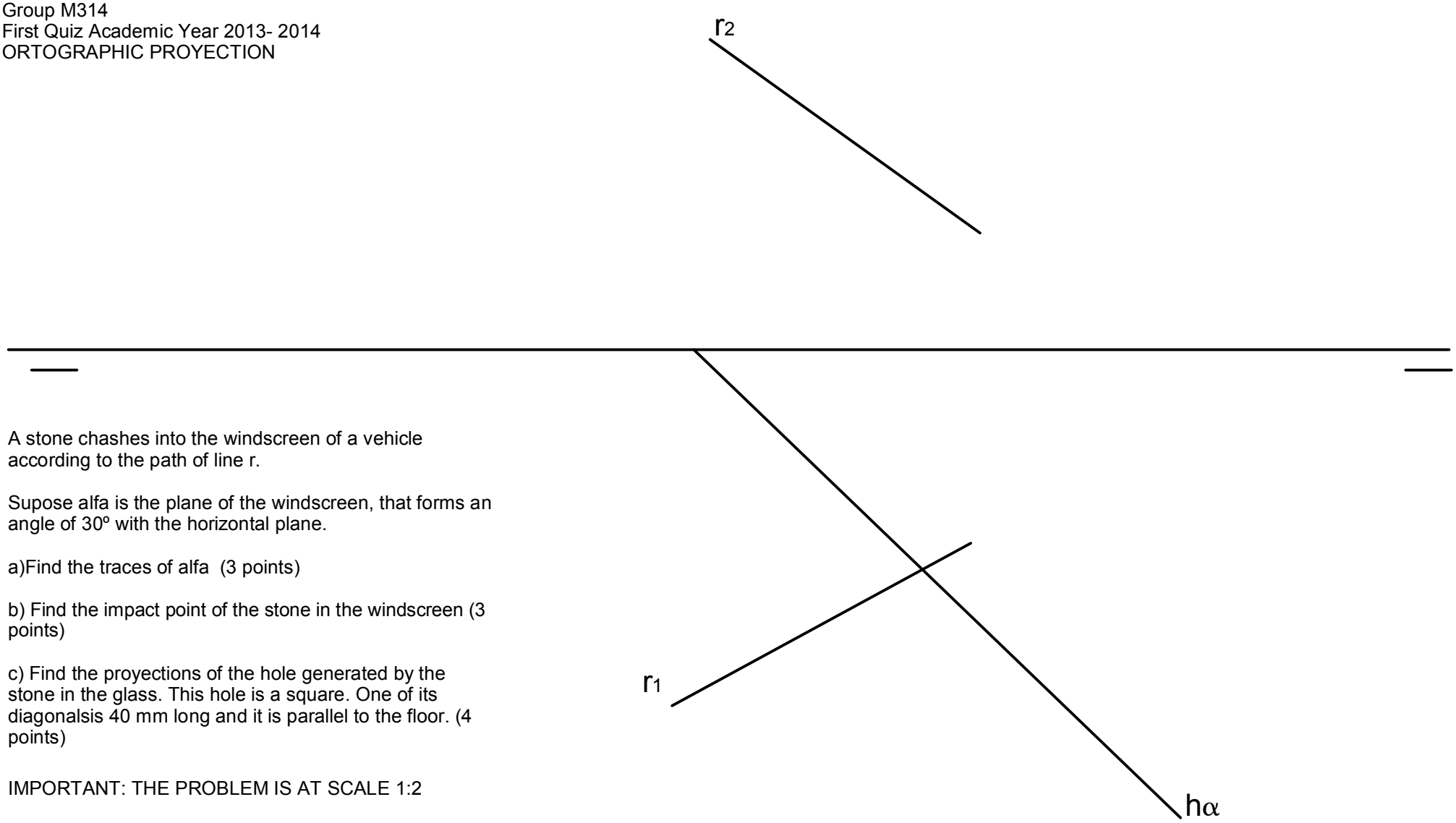
CONTINUOUS EVALUATION: DIHEDRAL
29th of February 2011

The tilting platform of a truck is defined by lines "s" and "t".
a) Find the plane that defines the platform of the truck.
b) Find the intersection between the platform and the horizontal surface of a vehicle bonnet, which is at the height that corresponds to intersection between lines "s" and "t".
c) Find the projections of the platform if it is rotated an angle of 90º on the vertical plane around point A in the clock direction.
d) Find the angle between the rotated plane and the horizontal plane.



PLEASE, FOR EACH OF THE QUESTIONS, DETAIL THE STEPS FOLLOWED TO ARRIVE THE SOLUTION.

ENGINEERING GRAPHICS
BACHELOR'S DEGREE IN INDUSTRIAL TECHNOLOGIES ENGINEERING
Group M314
First Quiz Academic Year 2013- 2014
ORTOGRAPHIC PROYECTION



A stone chashes into the windscreen of a vehicle according to the path of line r.

Supose alfa is the plane of the windscreen, that forms an angle of 30º with the horizontal plane.

a)Find the traces of alfa (3 points)

b) Find the impact point of the stone in the windscreen (3 points)

c) Find the proyections of the hole generated by the stone in the glass. This hole is a square. One of its diagonalsis 40 mm long and it is parallel to the floor. (4 points)

IMPORTANT: THE PROBLEM IS AT SCALE 1:2

SURNAME.....
NAME..... GROUP.....

CONTINUOUS EVALUATION: DIHEDRAL
28th February 2011 (GITI- M31)

A kite which dimensions are shown in the figure at the bottom of this page, is stuck in the branch r of the tree represented in the figure, such that:
- its middle point (intersection of the diagonals) stucks at the end of the branch (point O)
- the plane of the kite makes a 90º angle with the branch r
- the spine follows the maximum slope line of the kite's plane.
- the vertix B has a minimum depth of the vertix D

Find:
- The shadow of the kite on the ground when the sun rays are perpendicular on the horizontal plane.
- The proyections of the kite if it penetrates in the r branch until a point of a distance of 1600 mm from the end O (while remaining in the plane that makes a 90º angle with the branch r)
N.B.:Supose that the figure is at a scale of 1:100