Name & Lastname: ....

Department: .... Student ID: ....

Q-1) Let π be the plane that passes through the points $P_0 = (1, 3, 5)$, $Q_0 = (7, -6, 13)$ and is parallel to

the line $\dfrac{x-1}{2} = \dfrac{y-3}{4} = \dfrac{z-5}{11}$. Write the equation of this plane in the form $Ax + By + Cz = D$

where $D \geq 0$.

Q-2) Does the line $\dfrac{x-7}{127} = \dfrac{y+6}{31} = \dfrac{z-13}{-2}$ intersect the above plane π?

If so find the intersection point. If not explain why. Does this line lie in π?

Show your work in detail. Correct answers with no justification will not get any credit.

Grading: 8+2=10 points

Solution: (Grader: `melis.gezer@bilkent.edu.tr`)