Send the task to: kmwr@o2.pl. The safest format is .pdf

Total time for the test: 13 minutes

1. Let $\vec{u} = [p, -1, 1]$ and $\vec{v} = [p+1, q, -3]$.

   a) Find all p, q for which $\vec{u} \parallel \vec{v}$.

   b) For $p = q = 1$ find, to the nearest degree, the angle between $\vec{u}$ and $\vec{v}$.

   (7p)

2. A plane contains 3 points: $A = (1, 2, 3), B = (0, -2, -1)$ and $C = (1, -1, 1)$. Find an equation of this plane in

   a) cartesian form,

   b) parametric form.

   (6p)