Feedback 15-16

For all questions:

And once again: please, please support your solutions with diagrams!!!

- **Question 15.1:**
  - I would advise to use *arcosh* for the inverse function to *cosh* (as $cosh^{-1}$ may also mean $1/cosh$).
  - You don't need to compute the values numerically, say $arcosh(3/2)$ is good enough as an answer.
- **Question 16.2:**
  - It is very tempting to use Euclidean statements to prove the hyperbolic ones, but for that the hyperbolic objects should coincide with some Euclidean ones. In particular, in this question one needs to put a vertex of the triangle to the centre of the Klein disc. Then all three altitudes will coincide with the altitudes of the Euclidean triangle (by two a bit different reasons!).
- **Question 16.4:**
  - Almost no comments: almost everyone did very well here.
  - The part (e) about points lying on the lines can be also discussed for the points lying on the absolute (here represented by v_3). For these points one cannot compute Q (it is not defined because of division by 0). At the same time it is clear that a point of the absolute given by a vector v with $\langle v, v \langle = 0$ lies on a line l_a given by a vector a, $\langle v, v \langle > 0$ if the vector v lies in the plane pseudo-orthogonal to orthogonal to a, i.e. if $\langle v, a \rangle = 0$, which is defined and is easy to compute!