Questions asked by students on 2014-01-20.

Background:

1. Why does the tiling condition in Δ–complex structure mean labelling vertices and [cyclic orientation of edges of a triangle] isn't a Δ–complex structure?

Day of:

1. (a) Would you please go over some notation, i.e. f_*, $f_\#$ and $P\partial z$ vs ∂Pz, etc?

    (b) Could you explain $f_\#$ and f_*

2. is the P_n in the definition of chain homotopies always the prism operator?

3. Do we have other uses for the prism operator (besides proving theorem 2.10)?

4. Why are direct sum of chain complexes done like

$$0 \longrightarrow \mathbb{Z} \longrightarrow \mathbb{Z} \longrightarrow 0$$
$$0 \longrightarrow \mathbb{Z} \longrightarrow \mathbb{Z} \longrightarrow 0$$

   not
$$0 \longrightarrow \mathbb{Z} \longrightarrow \mathbb{Z} \longrightarrow 0$$
$$0 \longrightarrow \mathbb{Z} \longrightarrow \mathbb{Z} \longrightarrow 0$$

   or
$$0 \longrightarrow \mathbb{Z} \longrightarrow \mathbb{Z} \longrightarrow 0$$
$$0 \longrightarrow \mathbb{Z} \longrightarrow \mathbb{Z} \longrightarrow 0 \quad ?$$

Connections:

1. For any chain of abelian groups can you find a space with that chain?

2. Is there an intuitive geometric way to think of $f_\#$, f_*?

3. What is the geometric intuition behind the homology group?

Administration:

1. Would we have to be able to give the last proof of the lecture in an exam?