

* Instructions:

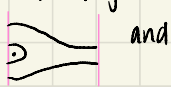
Given a 4-tuple $[p, a, b, r]$,

- ① Draw the diagram
- ② Construct the complex
- ③ Identify whether we have two 3-sided regions or one 4-sided region
- ④ Discuss the rainbow structure & how it affects the gradings.
- ⑤ Which generator is in the topmost grading?

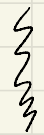
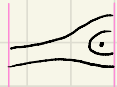
4-tuples: $[5, 1, 1, 2]$, $[5, 2, 0, 2]$, $[7, 2, 1, 3]$, $[7, 2, 0, 4]$ ← you do these

* regions:

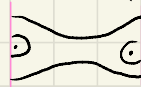
3-sided region:



and

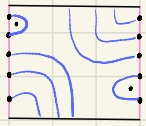


4-sided region



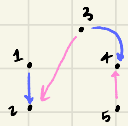
* Example: $[5, 1, 0, 4]$

① Draw diagram

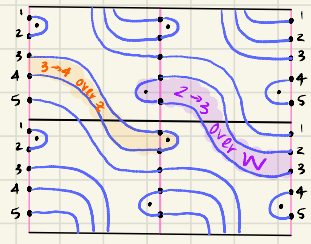


→ discs containing z
→ discs containing w

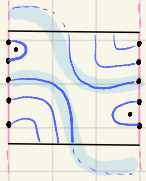
② Construct complex



4 tiles from universal cover



③ we have one 4-sided region



④ rainbows do not intersect.



⑤ Topmost generator is 1.