

## Vertex Frame Analysis, Part I

The left image below uses the  $S$  and  $P$  values used in the right image. The curves provide the ability to do clock arithmetic on  $J_1$ ,  $J_2$ , and  $J_3$ . Answer questions using (#, ##, ###) for these jump triples based on the left image.

1. There are two alternative versions where the first number is 6. What are these two triples?
2. There are two alternative versions where the first number is 0. What are these two triples?
3. There only one version where the first number is 3. What is that triple?
4. There only one version where the first number is 9. What is that triple?
5. This question is based on the right image which appears to have 12 arrows pointing counterclockwise around the circle. Propose a jump triple that will get the arrows pointing in a clockwise direction instead.
6. Provide an alternative specification of jumps producing clockwise pointing arrows that does NOT start with 0. There are four correct answers, can you get all four?

