Snap Nodes 3D - Notes

Valerie Coffman

July 18, 2008

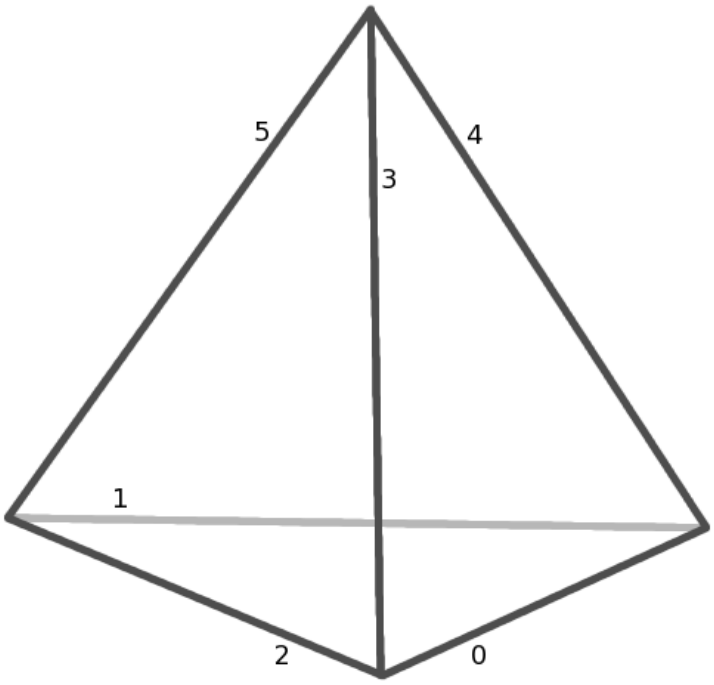
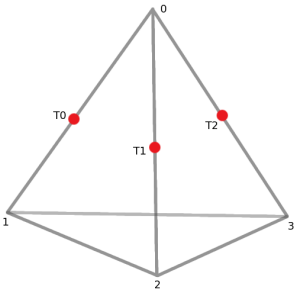
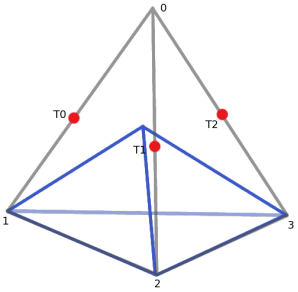


Figure 1: A tet with the edges labelled.

1 TetFaceSnapper

signatures: (3,4,5), (0,1,4), (0,2,3), (1,2,5)





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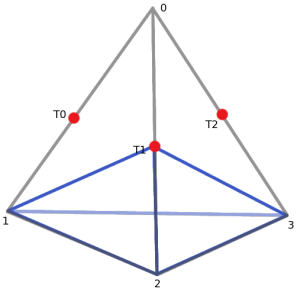

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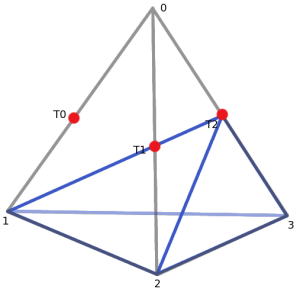

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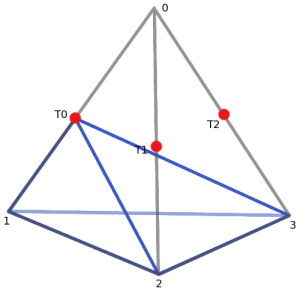

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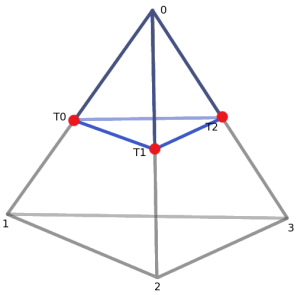

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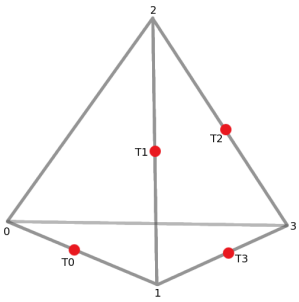
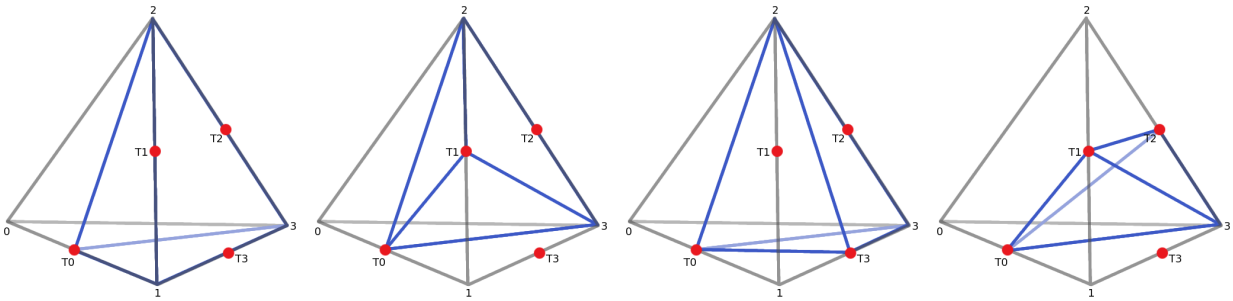
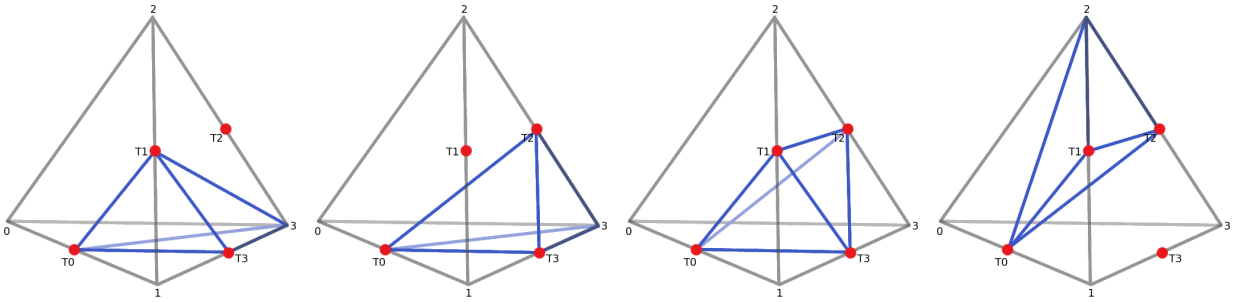
2 TetFourEdgeSnapper1

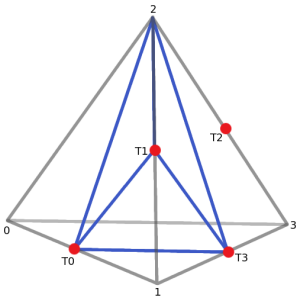
signatures: (0,1,3,4), (0,2,3,4), (0,3,4,5), (0,1,4,5), (1,2,4,5), (1,3,4,5), (0,2,3,5), (1,2,3,5), (2,3,4,5), (0,1,2,3), (0,1,2,4), (0,1,2,5)



Note that moves 29 and 30 appear to the same in the diagrams below. In the code, nodes 1, 2, and 3 go to transition points 1,2, and 3 respectively for move 29, but to transition points 3, 1, and 2 respectively, for move 30. The result for this element is the same but neighboring elements will be affected differently.







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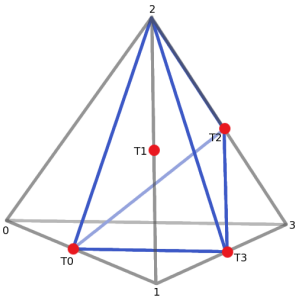

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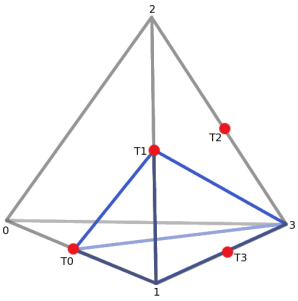

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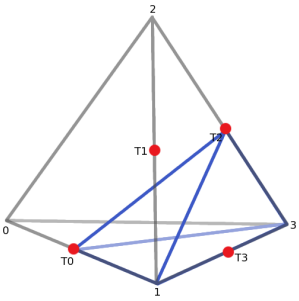

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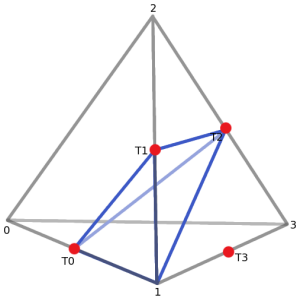

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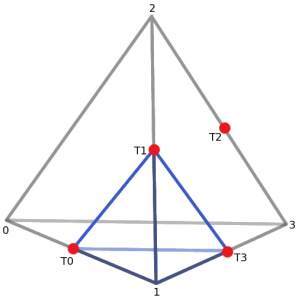

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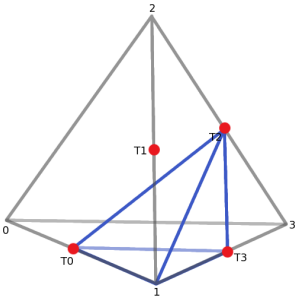

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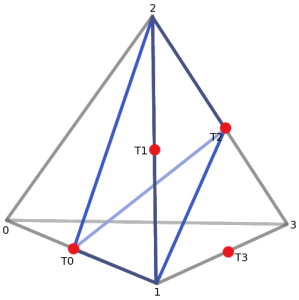

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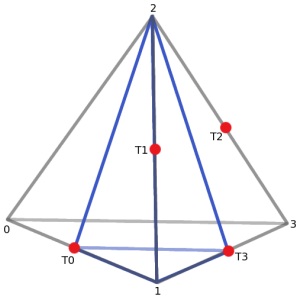

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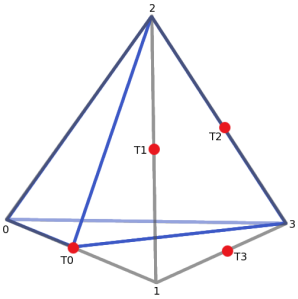

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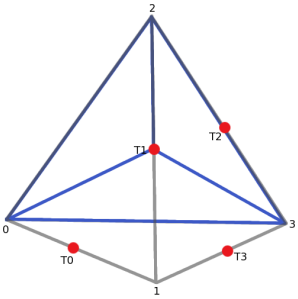

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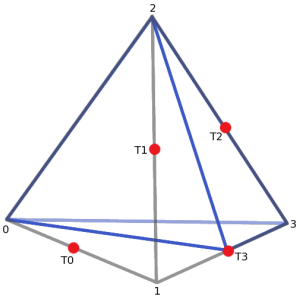

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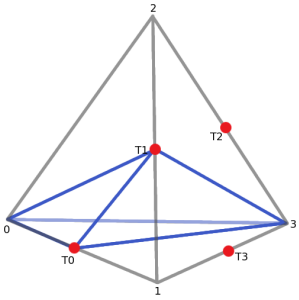

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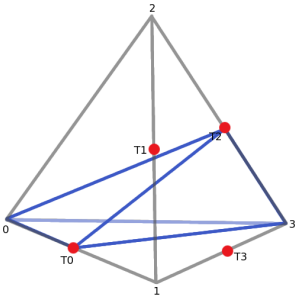

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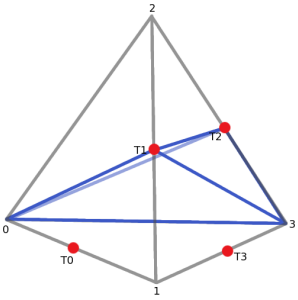

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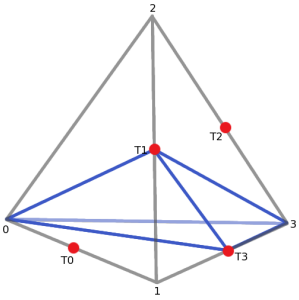

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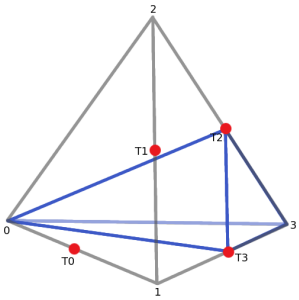

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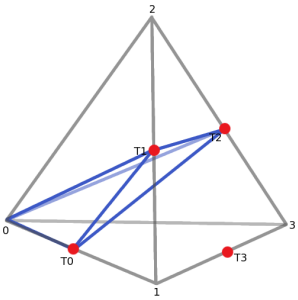

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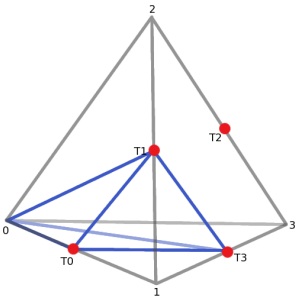

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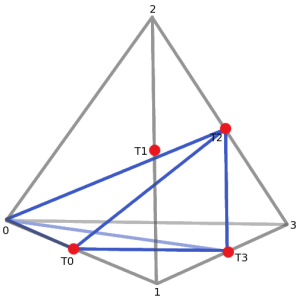

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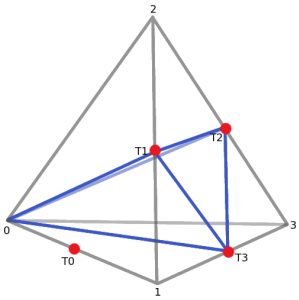

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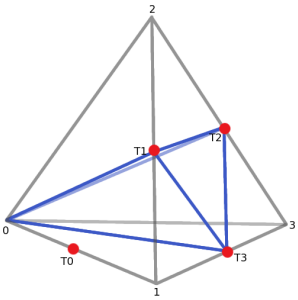

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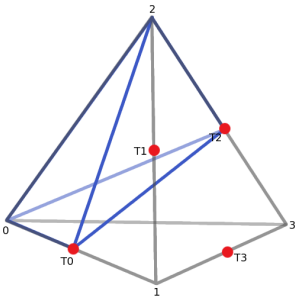

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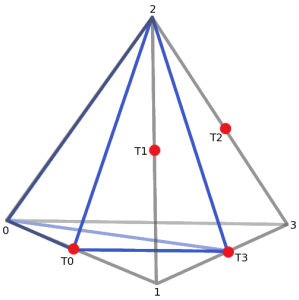

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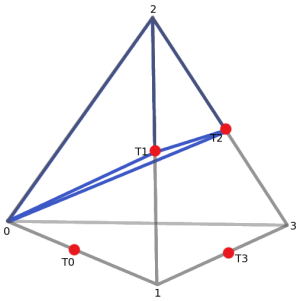

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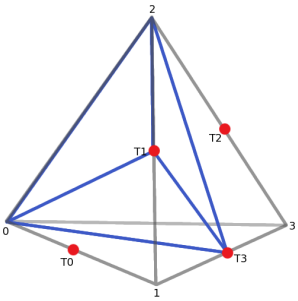

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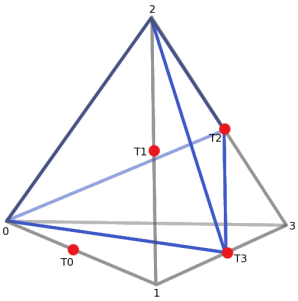

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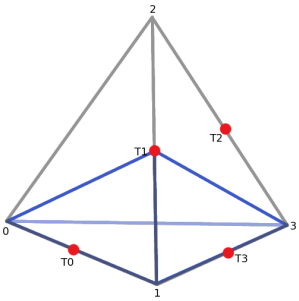

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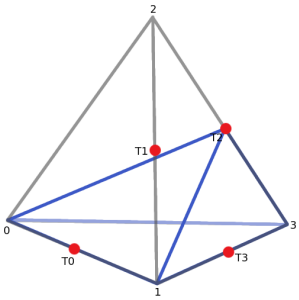

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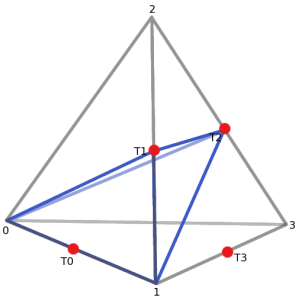

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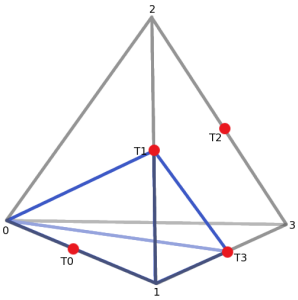

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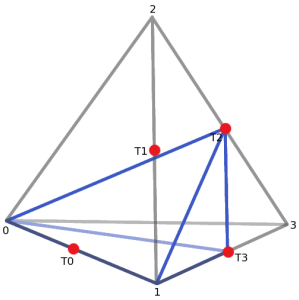

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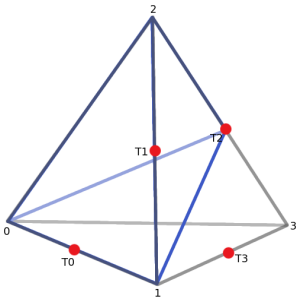

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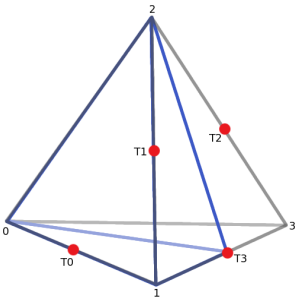

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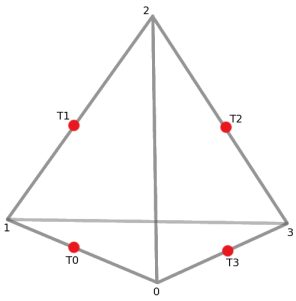
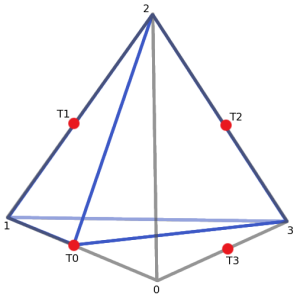
3 TetFourEdgeSnapper2

signatures: (1,2,3,4), (0,2,4,5), (0,1,3,5)





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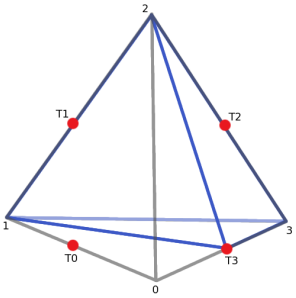

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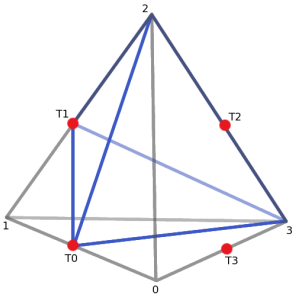

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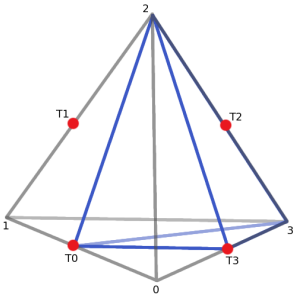

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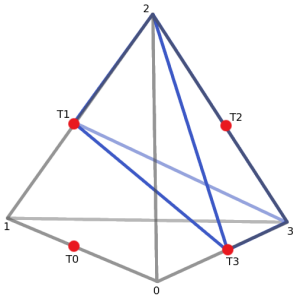

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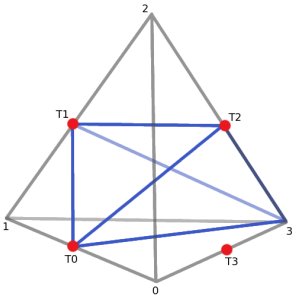

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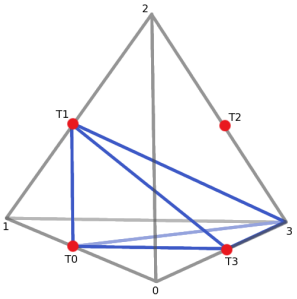

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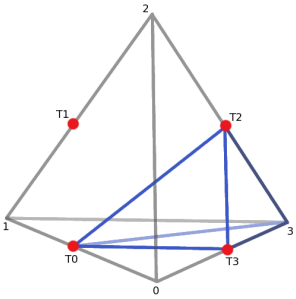

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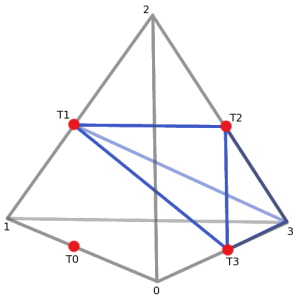

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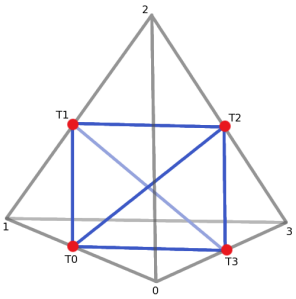

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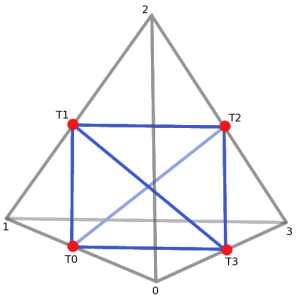

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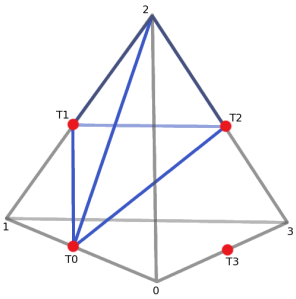

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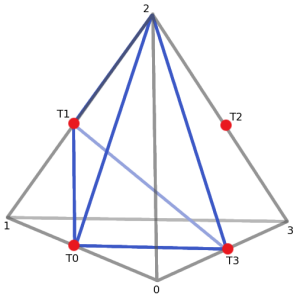

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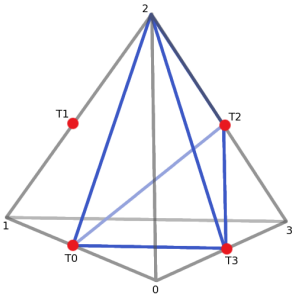

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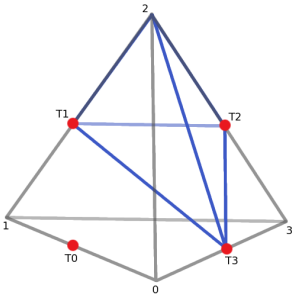

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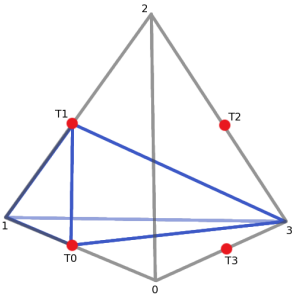

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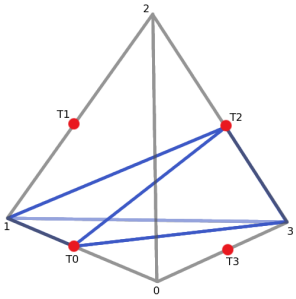

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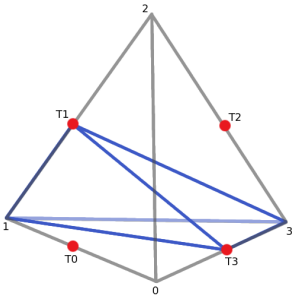

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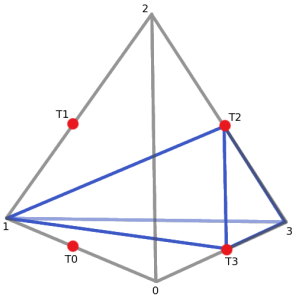

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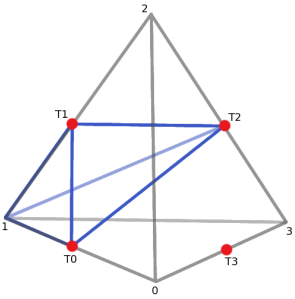

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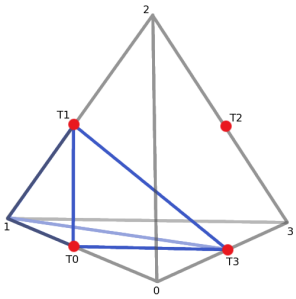

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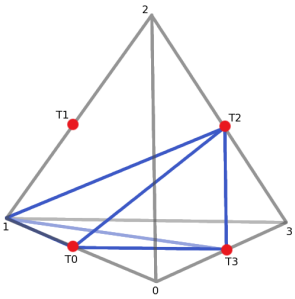

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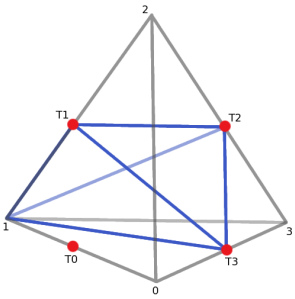

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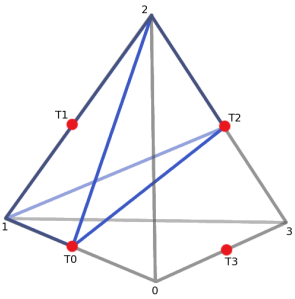

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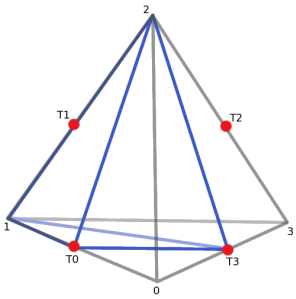

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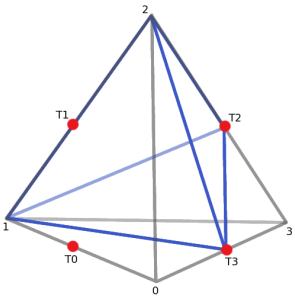

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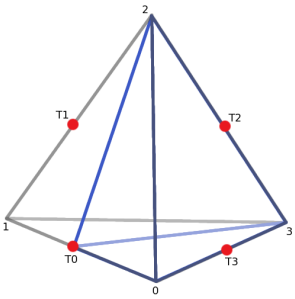

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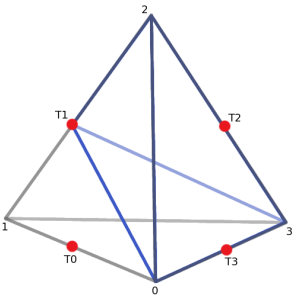

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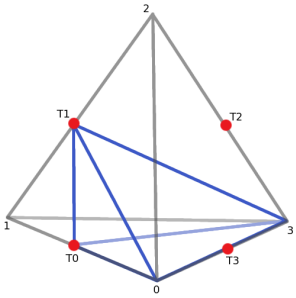

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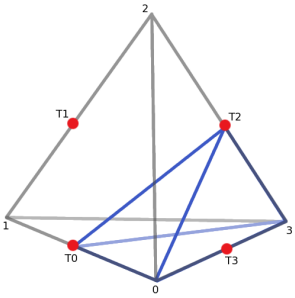

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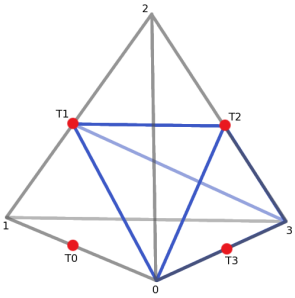

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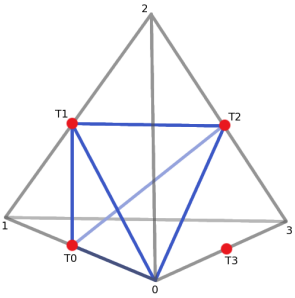

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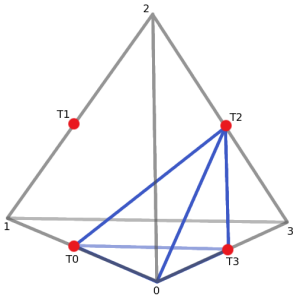

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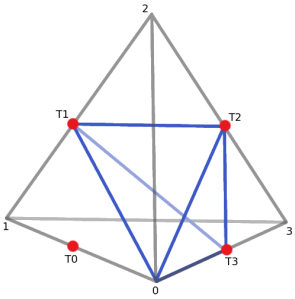

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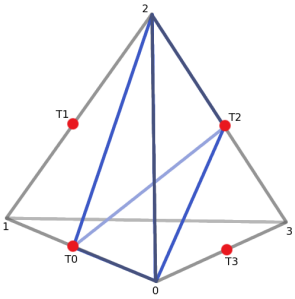

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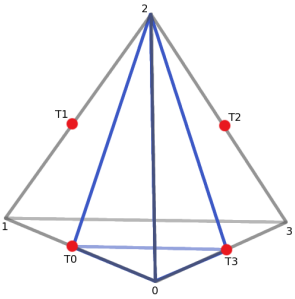

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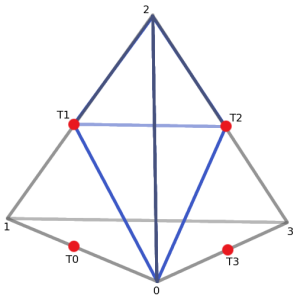

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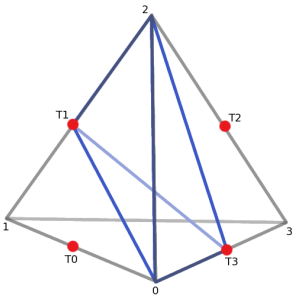

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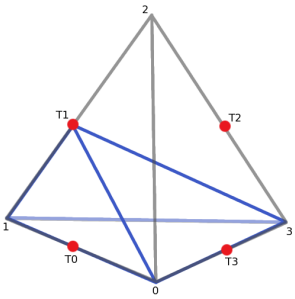

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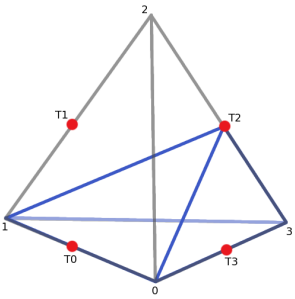

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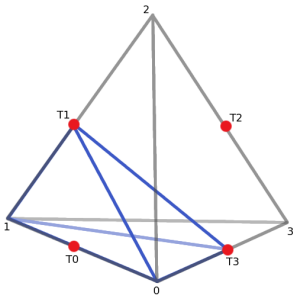

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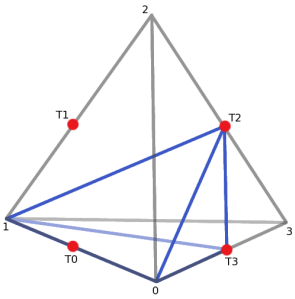

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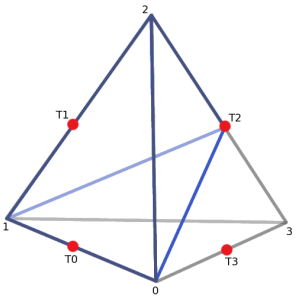

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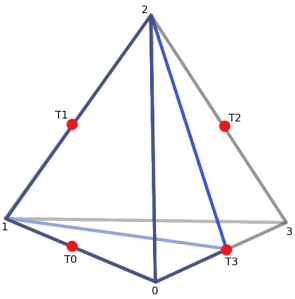

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4 TetThreeEdgeSnapper

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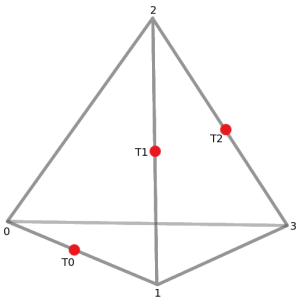

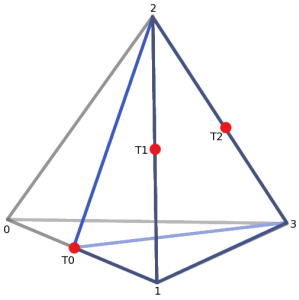

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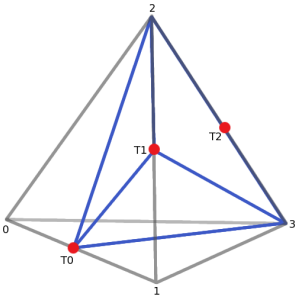

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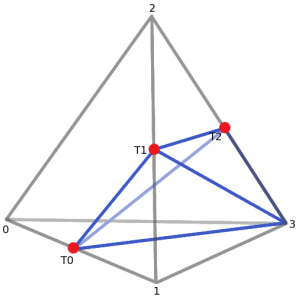

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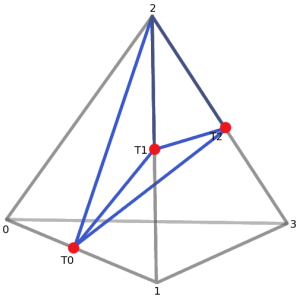

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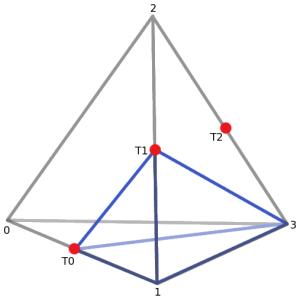

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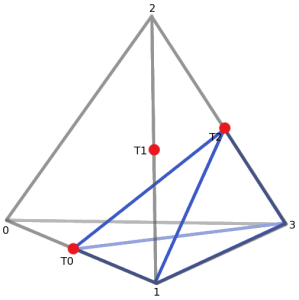

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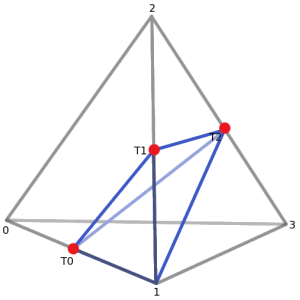

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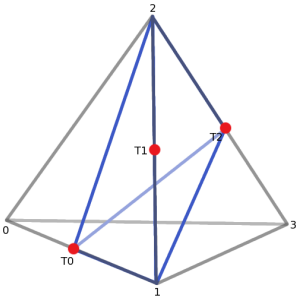

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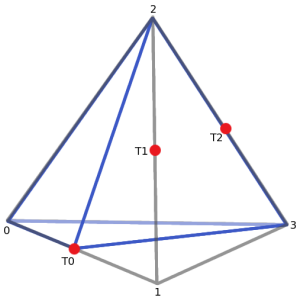

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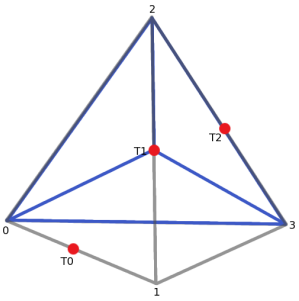

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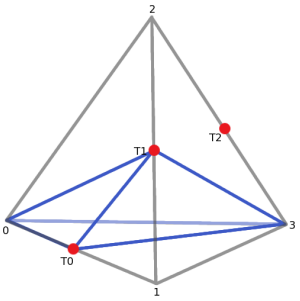

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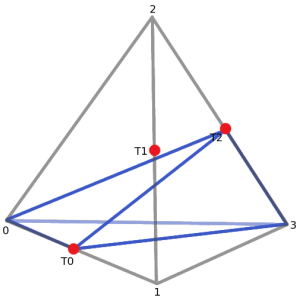

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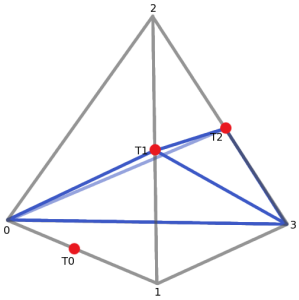

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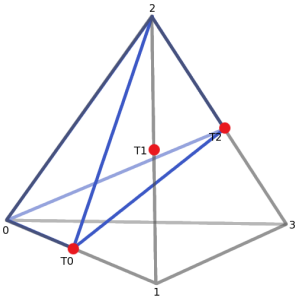

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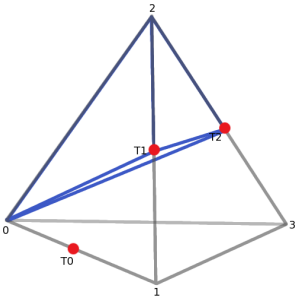

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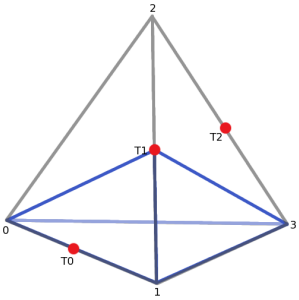

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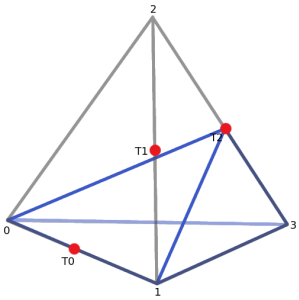

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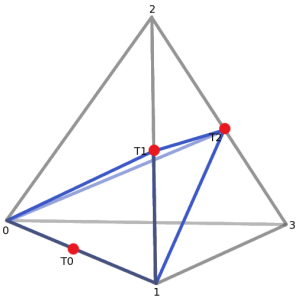

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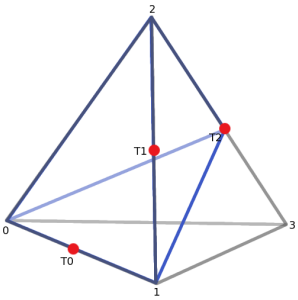

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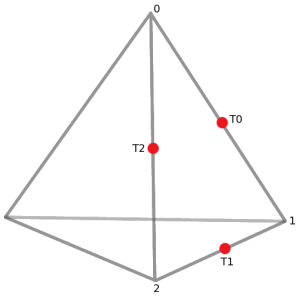
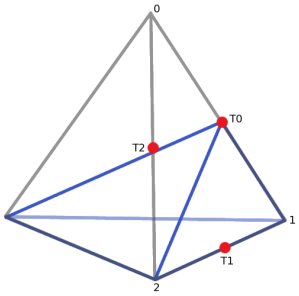
5 TriangularBaseSnapper

signatures: (0,3,4), (0,1,2), (2,3,5), (1,4,5)





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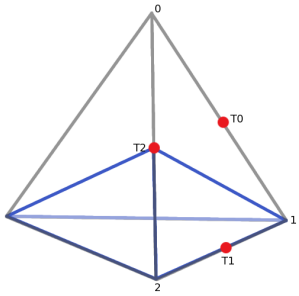

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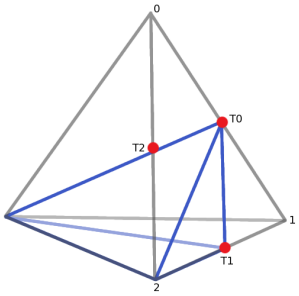

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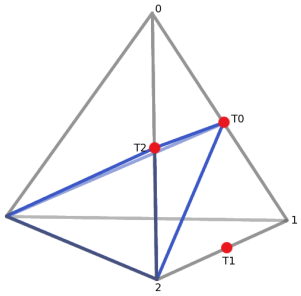

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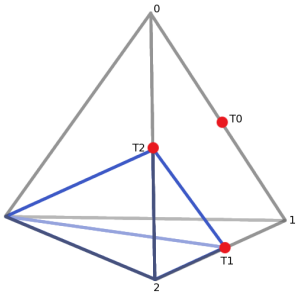

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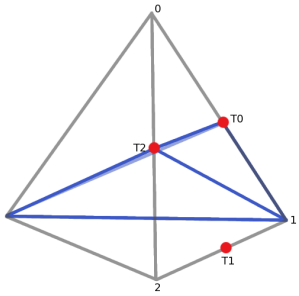

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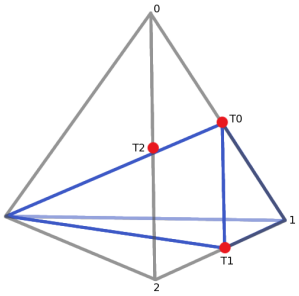

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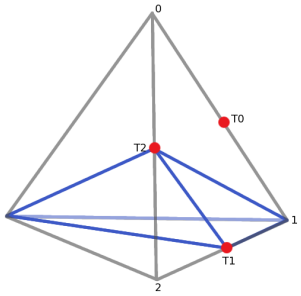

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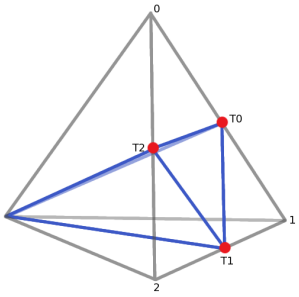
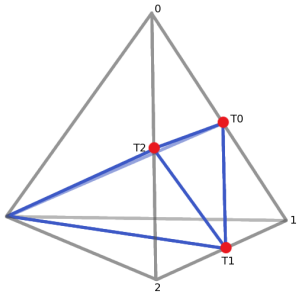


9



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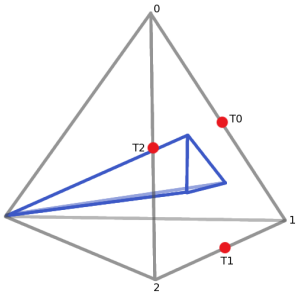

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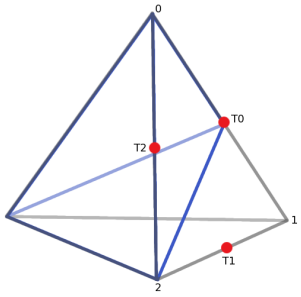
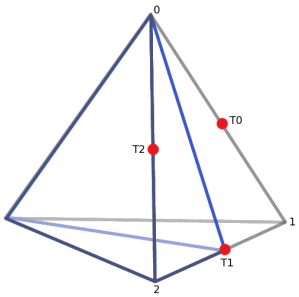


12

Note that moves 9 and 10 appear to be the same in the diagrams above. See the note on this for the TetFourEdgeSnapper1.



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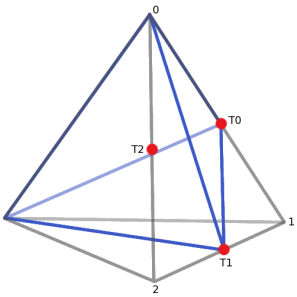

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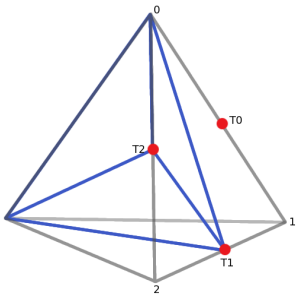

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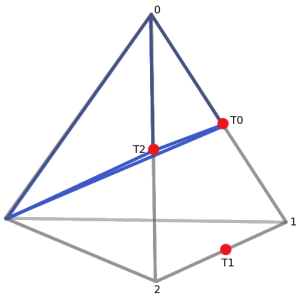

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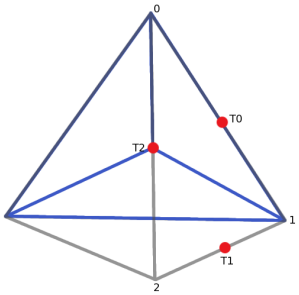
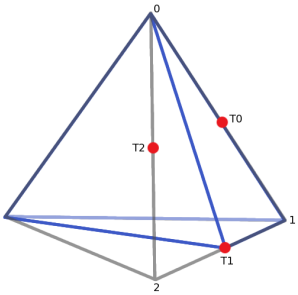


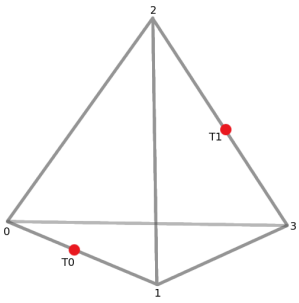
17

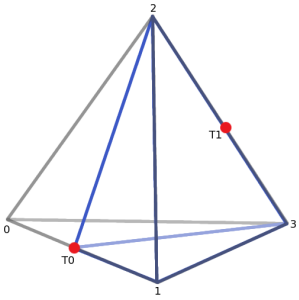


18

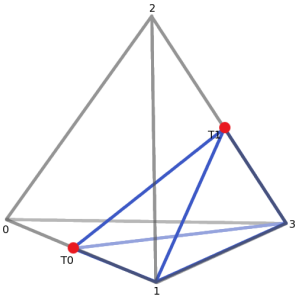
6 OppositeTetEdgeSnapper

signatures: (0,5), (1,3), (2,4)

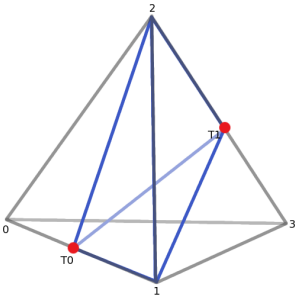




1



2



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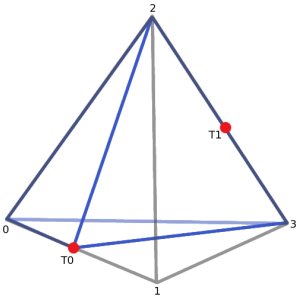

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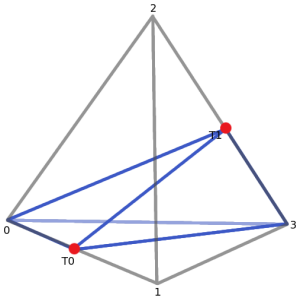

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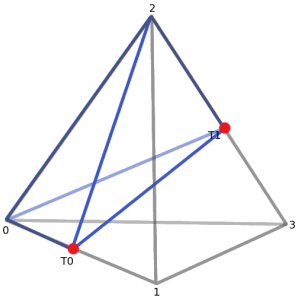

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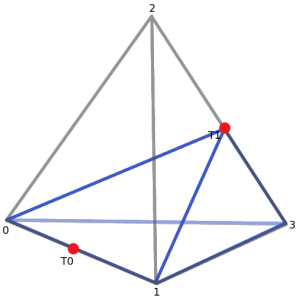
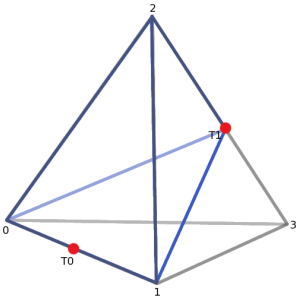


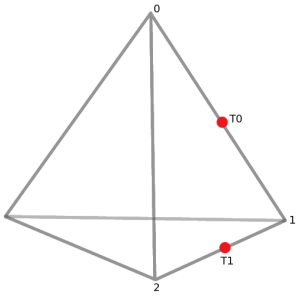
7

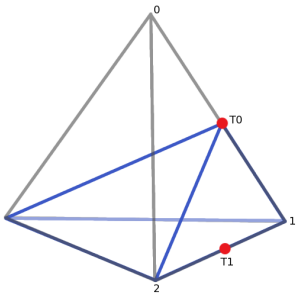


8

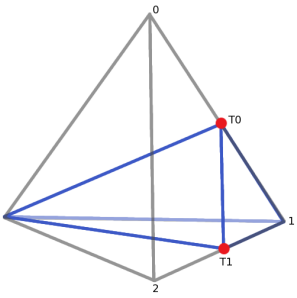
7 TriangularTwoEdgeSnapper

signatures: (0,1), (0,2), (0,3), (0,4), (1,2), (1,4), (1,5), (2,3), (2,5), (3,4), (3,5), (4,5)





1



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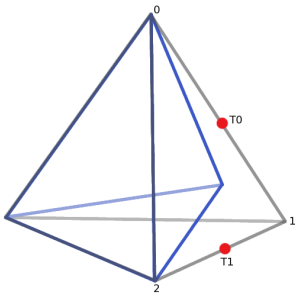
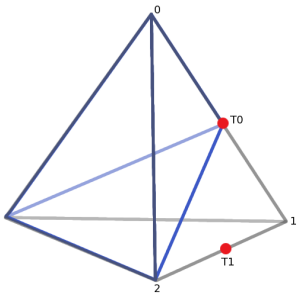


3



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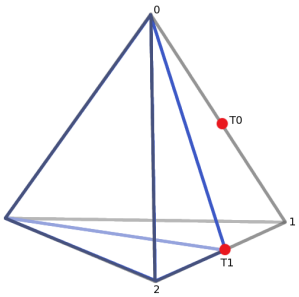
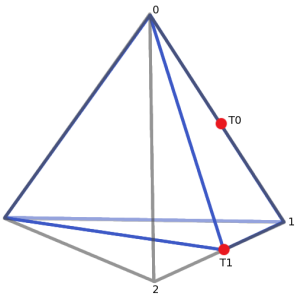


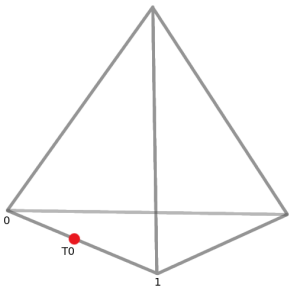
5

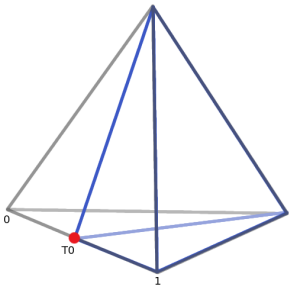


6

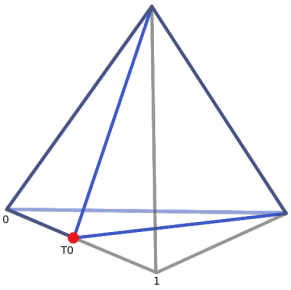
8 SingleNodeSnapper

signatures: (0,), (1,), (2,), (3,), (4,), (5,)





1



2