analysis

End	Shorter End	Objective	X-coordinates
Arithmetic Torus Cusp	Yes	length	(1, 1, 1, 1, 1, 1, 1, 1)
Hyperbolic Surface Hyperbolic	Yes	length	(1, 1, 6/5, 6/5, 6/5, 6/5, 6/5, 6/5)
Hyperbolic Surface Hyperbolic	No	length	(1, 1, 3/2, 3/2, 3/2, 3/2, 3/2, 3/2)
Cusp	No	length	(1, 1, 8, 1/8, 8, 1/8, 8, 1/8)
Hyperbolic	Yes	length	(1, 1/8, 8, 1/8, 64, 1/8, 8, 1/8)
Hyperbolic	No	length	(1, 1/8, 1, 1, 8, 1, 1, 1)
Special	Yes	length	(1, 1/8, 1/8, 8, 1/8, 8, 1/8, 8)
Special	No	length	(1, 1/8, 8/27, 27/8, 8/27, 27/8, 8/27, 27/8)
End	Shorter End	Objective	X-coordinates
Arithmetic Torus Cuen	Yes	tr	
Arithmetic Torus Cusp	163	u	(1, 1, 1, 1, 1, 1, 1, 1)
Hyperbolic Surface Hyperbolic	Yes	tr	(1, 1, 1, 1, 1, 1, 1) (1, 1, 6/5, 6/5, 6/5, 6/5, 6/5)
•			
Hyperbolic Surface Hyperbolic	Yes	tr	(1, 1, 6/5, 6/5, 6/5, 6/5, 6/5, 6/5)
Hyperbolic Surface Hyperbolic Hyperbolic Surface Hyperbolic	Yes No	tr tr	(1, 1, 6/5, 6/5, 6/5, 6/5, 6/5, 6/5) (1, 1, 3/2, 3/2, 3/2, 3/2, 3/2)
Hyperbolic Surface Hyperbolic Hyperbolic Surface Hyperbolic Cusp	Yes No No	tr tr tr	(1, 1, 6/5, 6/5, 6/5, 6/5, 6/5, 6/5) (1, 1, 3/2, 3/2, 3/2, 3/2, 3/2, 3/2) (1, 1, 8, 1/8, 8, 1/8, 8, 1/8)
Hyperbolic Surface Hyperbolic Hyperbolic Surface Hyperbolic Cusp Hyperbolic	Yes No No Yes	tr tr tr tr	(1, 1, 6/5, 6/5, 6/5, 6/5, 6/5, 6/5) (1, 1, 3/2, 3/2, 3/2, 3/2, 3/2, 3/2) (1, 1, 8, 1/8, 8, 1/8, 8, 1/8) (1, 1/8, 8, 1/8, 64, 1/8, 8, 1/8)

analysis

(A',B')	tr(A')	tr(B')	tr(A'B')	tr(A'(B')^(-1))	tr([A',B'])	length(A')	length(B')	length(A'B')
(A, B)	8	8	8	35	3	3.85	3.85	3.85
(A, B)	8.2	8.2	8.2	37.04	4.32	3.91	3.91	3.91
(A, B)	9.03	9.03	9.03	46.07	12.48	4.13	4.13	4.13
(A, B)	20.25	20.25	20.25	367.5	3	5.91	5.91	5.91
(B, A*B)	38.53	19.27	53.02	38.53	9.12	5.98	5.85	9.14
(B, A*B)	12.5	6.25	32.38	12.5	9.12	4.72	3.38	6.7
(A, B)	24.75	24.75	41.62	109.81	16.02	6.85	6.85	6.85
(A, B)	15.03	15.03	20.98	65.33	16.02	5.61	5.61	5.61
(A',B')	tr(A')	tr(B')	tr(A'B')	tr(A'(B')^(-1))	tr([A',B'])	length(A')	length(B')	length(A'B')
(A',B') (A, B)	tr(A') 8		-			length(A') 3.85		
` '		8	8	35	3	3.85	3.85	3.85
(A, B)	8	8 8.2	8 8.2	35 37.04	3 4.32	3.85 3.91	3.85 3.91	3.85 3.91
(A, B) (A, B)	8 8.2 9.03	8 8.2	8.2 9.03	35 37.04 46.07	3 4.32 12.48	3.85 3.91	3.85 3.91 4.13	3.85 3.91 4.13
(A, B) (A, B) (A, B)	8 8.2 9.03 20.25	8.2 9.03	8.2 9.03 20.25	35 37.04 46.07 367.5	3 4.32 12.48 3	3.85 3.91 4.13 5.91	3.85 3.91 4.13 5.91	3.85 3.91 4.13 5.91
(A, B) (A, B) (A, B) (A, B)	8.2 9.03 20.25 19.27	8.2 9.03 20.25	8 8.2 9.03 20.25 73.56	35 37.04 46.07 367.5 1456.53	3 4.32 12.48 3 9.12	3.85 3.91 4.13 5.91 5.85	3.85 3.91 4.13 5.91 5.98	3.85 3.91 4.13 5.91 7.89
(A, B) (A, B) (A, B) (A, B) (A*B, B**(-1))	8 8.2 9.03 20.25 19.27	8 8.2 9.03 20.25 14.06	8 8.2 9.03 20.25 73.56 21.5	35 37.04 46.07 367.5 1456.53	3 4.32 12.48 3 9.12 9.12	3.85 3.91 4.13 5.91 5.85 4.72	3.85 3.91 4.13 5.91 5.98 3.38	3.85 3.91 4.13 5.91 7.89 5.39
(A, B) (A, B) (A, B) (A, B) (A*B, B**(-1)) (B**(-1), A*B)	8 8.2 9.03 20.25 19.27 11 24.75	8 8.2 9.03 20.25 14.06 6.25	8 8.2 9.03 20.25 73.56 21.5 41.62	35 37.04 46.07 367.5 1456.53 12.5 109.81	3 4.32 12.48 3 9.12 9.12 16.02	3.85 3.91 4.13 5.91 5.85 4.72 6.85	3.85 3.91 4.13 5.91 5.98 3.38 6.85	3.85 3.91 4.13 5.91 7.89 5.39 6.85

analysis

length(A'(B')^(-1))	length([A',B'])
7.05	0
7.17	2.19
7.62	4.87
9.57	0
7.89	4.16
5.39	4.16
11.45	6.24
9.7	6.24
length(A'(B')^(-1))	length([A',B'])
length(A'(B')^(-1)) 7.05	length([A',B']) 0
	- 1
7.05	0
7.05 7.17	0 2.19
7.05 7.17 7.62	0 2.19 4.87
7.05 7.17 7.62 9.57	0 2.19 4.87 0
7.05 7.17 7.62 9.57 9.14	0 2.19 4.87 0 4.16