$$D^{-1}$$

	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]
[1,]	1	0	0	0	0	0
[2,]	0	1	0	0	0	0
[3,]	0	0	1	0	0	0
[4,]	0	0	0	2	0	0
[5,]	0	0	0	0	2	0
[6,]	0	0	0	0	0	2

$$L^{-1}$$

	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]
[1,]	1.0	0.0	0.0	0.0	0.0	0
[2,]	0.0	1.0	0.0	0.0	0.0	0
[3,]	0.0	0.0	1.0	0.0	0.0	0
[4,]	-0.5	-0.5	0.0	1.0	0.0	0
[5,]	0.0	-0.5	-0.5	0.0	1.0	0
[6,]	0.0	0.0	0.0	-0.5	-0.5	1

	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]
[1,]	1	0	0	-0.5	0.0	0.0
[2,]	0	1	0	-0.5	-0.5	0.0
[3,]	0	0	1	0.0	-0.5	0.0
[4,]	0	0	0	1.0	0.0	-0.5
[5,]	0	0	0	0.0	1.0	-0.5
[6,]	0	0	0	0.0	0.0	1.0

$$(L^T)^{-1}$$

	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]
[1,]	1	0	0	-1	0	0
[2,]	0	1	0	-1	-1	0
[3,]	0	0	1	0	-1	0
[4,]	0	0	0	2	0	-1
[5,]	0	0	0	0	2	-1
[6,]	0	0	0	0	0	2

$$(L^T)^{-1} \cdot D^{-1}$$

	[,1]	[,2]	[,3]	[,4]	[,5]	[,6]
[1,]	1.5	0.5	0.0	-1.0	0.0	0
[2,]	0.5	2.0	0.5	-1.0	-1.0	0
[3,]	0.0	0.5	1.5	0.0	-1.0	0
[4,]	-1.0	-1.0	0.0	2.5	0.5	-1
[5,]	0.0	-1.0	-1.0	0.5	2.5	-1
[6,]	0.0	0.0	0.0	-1.0	-1.0	2

$$A^{-1}$$