





$\Lambda = \begin{pmatrix} 1 & 0 \\ 0 & -12 \end{pmatrix}$

The eigenvalues are  $\lambda_1 = 1$  and  $\lambda_2 = -12$ .

For  $\lambda_1 = 1$ , the eigenvector  $\mathbf{v}_1$  satisfies
 
$$(\Lambda - \lambda_1 I)\mathbf{v}_1 = \begin{pmatrix} 0 & 0 \\ 0 & -13 \end{pmatrix} \begin{pmatrix} v_{11} \\ v_{12} \end{pmatrix} = \begin{pmatrix} 0 \\ -13v_{12} \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \end{pmatrix}$$
 which implies  $v_{12} = 0$ . We can choose  $v_{11} = 1$ , so  $\mathbf{v}_1 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$ .

For  $\lambda_2 = -12$ , the eigenvector  $\mathbf{v}_2$  satisfies
 
$$(\Lambda - \lambda_2 I)\mathbf{v}_2 = \begin{pmatrix} 13 & 0 \\ 0 & 0 \end{pmatrix} \begin{pmatrix} v_{21} \\ v_{22} \end{pmatrix} = \begin{pmatrix} 13v_{21} \\ 0 \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \end{pmatrix}$$
 which implies  $v_{21} = 0$ . We can choose  $v_{22} = 1$ , so  $\mathbf{v}_2 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$ .

The matrix  $P$  is formed by the eigenvectors as columns:
 
$$P = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$$

The matrix  $P^{-1}$  is the inverse of  $P$ :
 
$$P^{-1} = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}$$

The matrix  $P^{-1}\Lambda P$  is
 
$$P^{-1}\Lambda P = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & -12 \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} = \begin{pmatrix} 1 & 0 \\ 0 & -12 \end{pmatrix}$$

The matrix  $e^{t\Lambda}$  is
 
$$e^{t\Lambda} = \begin{pmatrix} e^{t \cdot 1} & 0 \\ 0 & e^{t \cdot (-12)} \end{pmatrix} = \begin{pmatrix} e^t & 0 \\ 0 & e^{-12t} \end{pmatrix}$$

The matrix  $e^{tP^{-1}\Lambda P}$  is
 
$$e^{tP^{-1}\Lambda P} = \begin{pmatrix} e^t & 0 \\ 0 & e^{-12t} \end{pmatrix}$$

The matrix  $e^{tA}$  is
 
$$e^{tA} = P e^{tP^{-1}\Lambda P} P^{-1} = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} \begin{pmatrix} e^t & 0 \\ 0 & e^{-12t} \end{pmatrix} \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} = \begin{pmatrix} e^t & 0 \\ 0 & e^{-12t} \end{pmatrix}$$

The matrix  $e^{tA}$  is
 
$$e^{tA} = \begin{pmatrix} e^t & 0 \\ 0 & e^{-12t} \end{pmatrix}$$

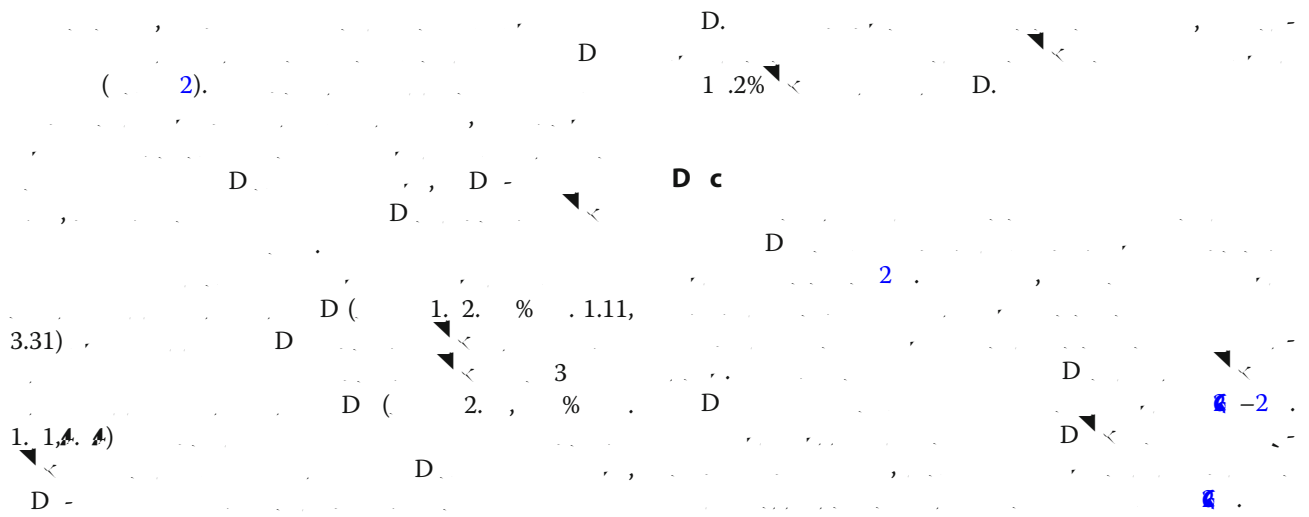
**Table 1** ...

	N	142 (%)	N	142 (%)	OR	95% CI	p
...	52.56	(8.65)	52.27	(8.96)	1.004	0.977,1.031	0.782
...	120	(84.5)	115	(81.0)	1.28	0.69,2.38	0.433
...	22	(15.5)	27	(19.0)			
...	105	(73.9)	95	(66.9)	1.40	0.84,2.34	0.194
...	37	(26.1)	47	(33.1)			
...	121	(85.2)	119	(83.8)	1.11	0.59,2.12	0.743
...	21	(14.8)	23	(16.2)			
...	60	(42.3)	37	(26.1)	2.08	1.26,3.43	<b>0.004</b>
...	82	(57.7)	105	(73.9)			
...	57	(40.1)	34	(23.9)	2.13	1.28,3.55	0.004
...	85	(59.9)	108	(76.1)			
...	90	(63.4)	72	(50.7)	1.69	1.05,2.70	0.031
...	52	(36.6)	70	(49.3)			
...	4	(2.8)	1	(0.7)	4.09	0.45,37.03	0.211
...	138	(97.2)	141	(99.3)			
...	32	(22.5)	26	(18.3)	1.30	0.73,2.32	0.378
...	110	(77.5)	116	(81.7)			
...	90.1	(14.5)	87.9	(12.7)	1.02	1.00, 1.04	<b>0.029</b>
...	43	(30.3)	35	(24.6)	1.33	0.79,2.24	0.288
...	99	(69.7)	107	(75.4)			
...	3.65	(1.38)	3.88	(1.09)	0.86	0.71,1.04	0.121
...	21	(14.8)	7	(4.9)	3.34	1.46,8.57	<b>0.005</b>
...	121	(85.2)	135	(95.1)			
...	31	(21.8)	25	(17.6)	1.31	0.73,2.35	0.372
...	111	(78.2)	117	(82.4)			
...	39	(27.5)	29	(20.4)	1.48	0.85,2.56	0.166
...	103	(72.5)	113	(79.6)			

**Table 1** ... (Continued)

	N	142 (%)	N	142 (%)	OR	95% CI	p
...	49	(34.5)	42	(29.6)	0.23	1.25, 0.76, 2.07	0.79
N	93	(65.5)	100	(70.4)			
...	3	(2.1)	1	(0.7)	1.11	3.02, 0.31, 29.20	0.91
N	139	(97.9)	140	(98.6)			
...	91	(64.1)	53	(37.3)	1.10	3.00, 1.85, 4.85	19.84
N	51	(35.9)	89	(62.7)			<b>&lt; 0.001</b>

<sup>a</sup>mean (± sd); [] reference group  
 Bold indicate p<0.05



**Table 2** ...

	Wald	p	95% CI
...	0.651	5.51	0.019
N			1.92
...	1.18	6.10	<b>0.014</b>
N			3.30





29-36.  $\mathbb{N}$  2008 63

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10.  $\mathbb{N}$  2014 1