Example in case-control study

Data

Obs	exposure	r	n
1	0	2	8
2	1	11	15

```
/* exposure 1='High Cholesterol Diet'
            0='Low Cholesterol  Diet';
   response 1='Yes'
            0='No' */
```

Deviance

Deviance and Pearson Goodness-of-Fit Statistics				
Criterion	Value	DF	Value/DF	Pr > ChiSq
Deviance	0.0000	0	.	.
Pearson	0.0000	0	.	.

Parameter estimates by logistic regression

Analysis of Maximum Likelihood Estimates					
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept		1	-1.0986	0.8165	1.8104	0.1785
exposure	1	1	2.1102	1.0038	4.4195	0.0355

Covariance matrix

Estimated Covariance Matrix		
Parameter	Intercept	exposure1
Intercept	0.666666	-0.66667
exposure1	-0.66667	1.007576

a) Write down the fitted line.
b) Find the 95% confidence interval of unknown parameters.
c) Estimate the odds ratio for high via lower cholesterol diets with its 95% confidence interval.
d) Estimate the probability of getting a disease for patients with high cholesterol diet and its 95% confidence interval.
e) Estimate the probability of getting a disease for patients with low cholesterol diet and its 95% confidence interval.