Reading: GLM.Validation
Model: Source Text
Problem Type: Calculate the sensitivity, specificity and false positive rate.

Given The following confusion matrix:

Actual \ Predicted		
	6	1
	2	4

Find Calculate the sensitivity, specificity, and false positive rate.

Solution First relate the given confusion matrix to the general layout of a confusion matrix

		Predicted				
Actual		6	1	=	TP	FN
		2	4		FP	TN

Sensitivity = TP / (TP + FN) = 0.85714

Specificity = TN / (TN + FP) = 0.67

False positive rate = 1 - Specificity = 0.33

Alice: "To help recall the denominator, notice it has each of the four letters exactly once and it begins with the term in the numerator. Further, on the exam, make sure you clearly label the confusion matrix to show which are actual values and which are predicted. Depending on which text/online source you read these may be switched. Here we're presenting the material in the same way as the GLM text."

Reading: GLM.Validation

GLM_Sensitivity (Problem 2)

Model: Source Text

Problem Type: Calculate the sensitivity, specificity and false positive rate.

Given The following confusion matrix:

		Predicted	
Actual			
	4	4	
	5	7	

Find Calculate the sensitivity, specificity, and false positive rate.

Solution First relate the given confusion matrix to the general layout of a confusion matrix

		Predicted				
Actual		4	4	=	TP	FN
		5	7		FP	TN

Sensitivity = TP / (TP + FP) = 0.5

Specificity = TN / (TN + FN) = 0.58

False positive rate = 1 - Specificity = 0.42

Alice: "To help recall the denominator, notice it has each of the four letters exactly once and it begins with the term in the numerator. Further, on the exam, make sure you clearly label the confusion matrix to show which are actual values and which are predicted. Depending on which text/online source you read these may be switched. Here we're presenting the material in the same way as the GLM text."