

Metrics for Performance Evaluation...

	PREDICTED CLASS		
	Class=Yes	Class=No	
ACTUAL CLASS	Class=Yes	a (TP)	b (FN)
	Class=No	c (FP)	d (TN)

- Most widely-used metric:

$$\text{Accuracy} = \frac{a + d}{a + b + c + d} = \frac{TP + TN}{TP + TN + FP + FN}$$

Cost-Sensitive Measures

$$\text{Precision (p)} = \frac{a}{a + c} \quad \text{Precision} = \frac{tp}{tp + fp}$$

$$\text{Recall (r)} = \frac{a}{a + b} \quad \text{Recall} = \frac{tp}{tp + fn}$$

$$\text{F - measure (F)} = \frac{2rp}{r + p} = \frac{2a}{2a + b + c}$$