Confusion matrix

Actual Class

Predicted class

	POSITIVE	NEGATIVE
POSITIVE	TP true +	FP ✦ false +
NEGATIVE	FN ✦ false −	TN true −

FP: Type 1 error

FN: Type 2 error

$$\text{Accuracy} = \frac{TP + TN}{TP + FP + TN + FN} \qquad \frac{\text{true outcomes}}{\text{all outcomes}}$$

Precision
(specificity)
(positive predictive value)
(exactness)
$$= \frac{TP}{TP + FP} \qquad \frac{\text{true positives}}{\text{all positives returned}}$$

Recall
(sensitivity)
(completeness)
$$= \frac{TP}{TP + FN} \qquad \frac{\text{true positives}}{\text{all positives actual}}$$

FP = 0 : perfect precision

FN = 0 : perfect recall