

# Actual Values

Positive

Negative

Predicted Values  
Positive

|                     |                    |
|---------------------|--------------------|
| TP<br>Type I error  | FP<br>Type I error |
| FN<br>Type II error | TN                 |

$$\text{Recall} = \frac{\text{TP}}{\text{TP} + \text{FN}}$$

$$\text{Precision} = \frac{\text{TP}}{\text{TP} + \text{FP}}$$

$$\text{Accuracy} = \frac{\text{TP} + \text{TN}}{\text{Total}}$$

$$F_1 = \frac{2 * \text{Recall} * \text{Precision}}{\text{Recall} + \text{Precision}}$$