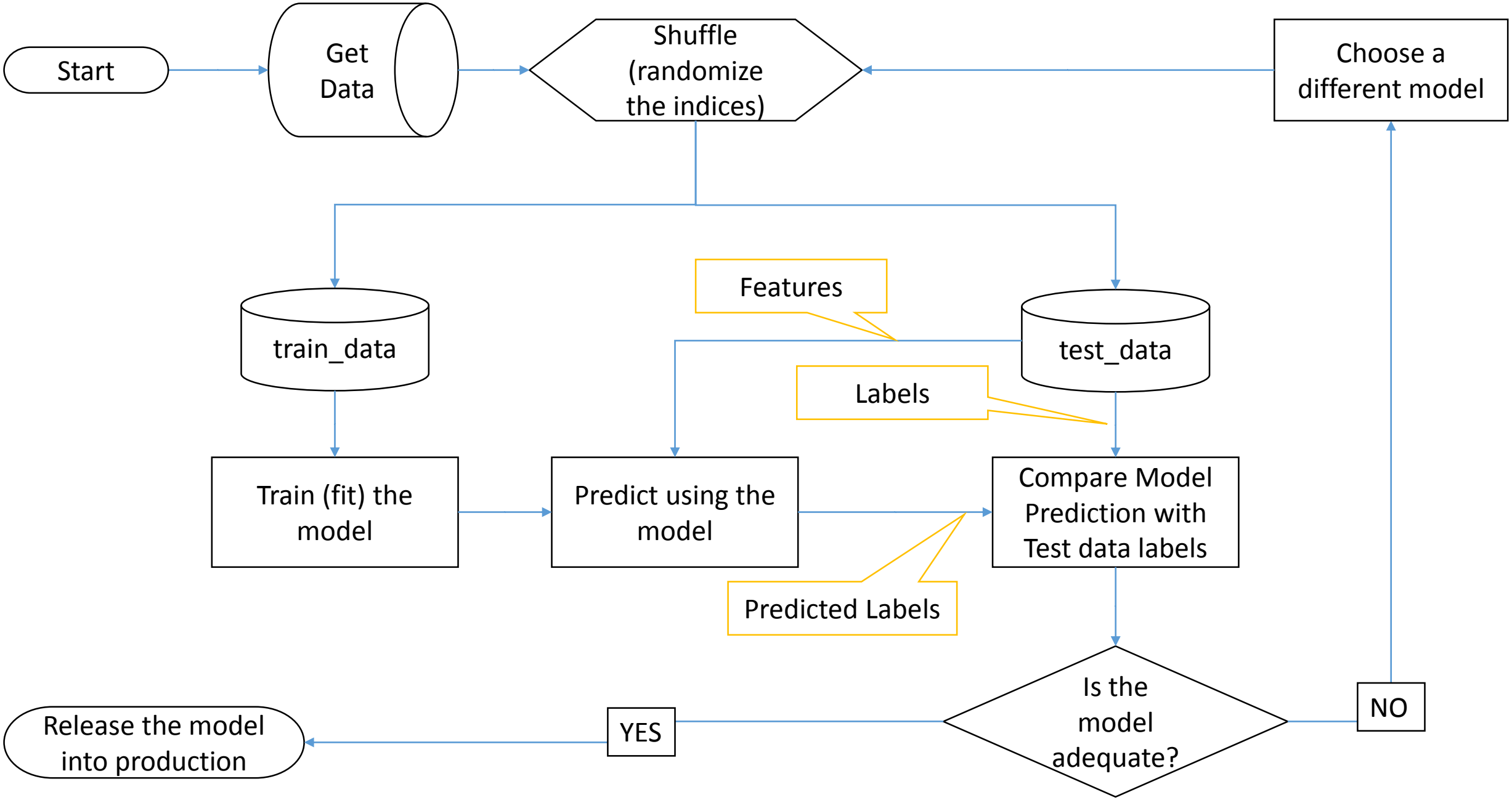
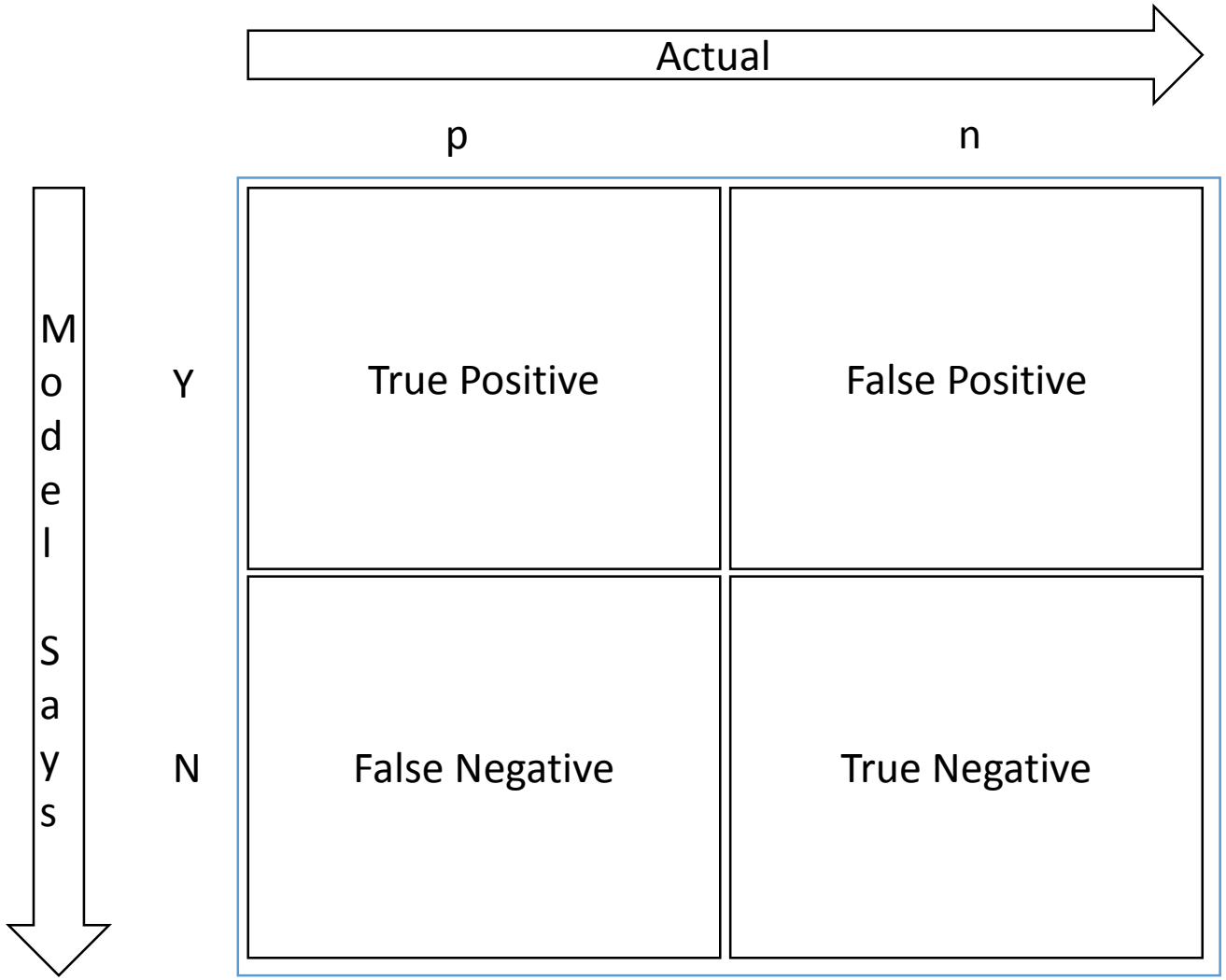
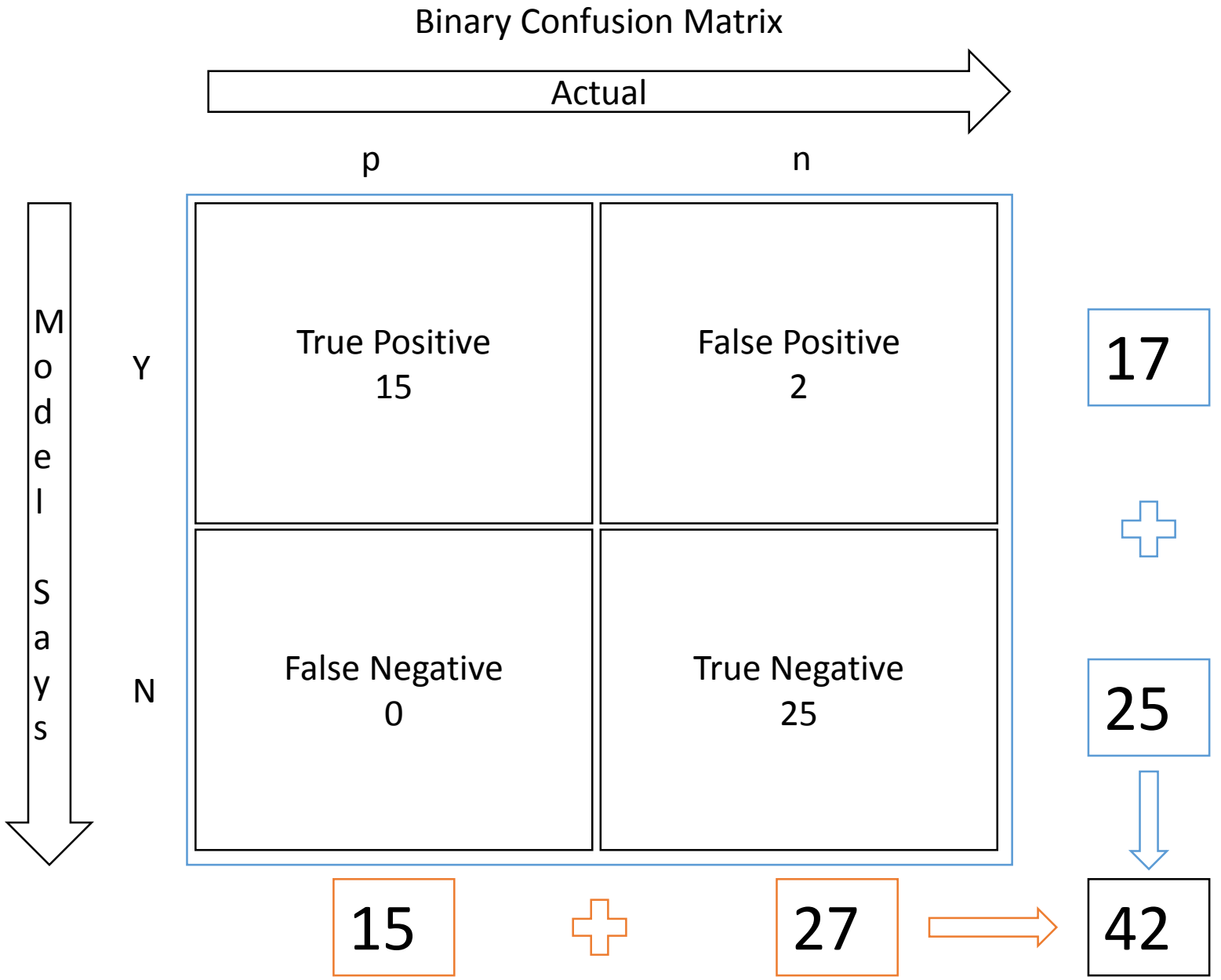
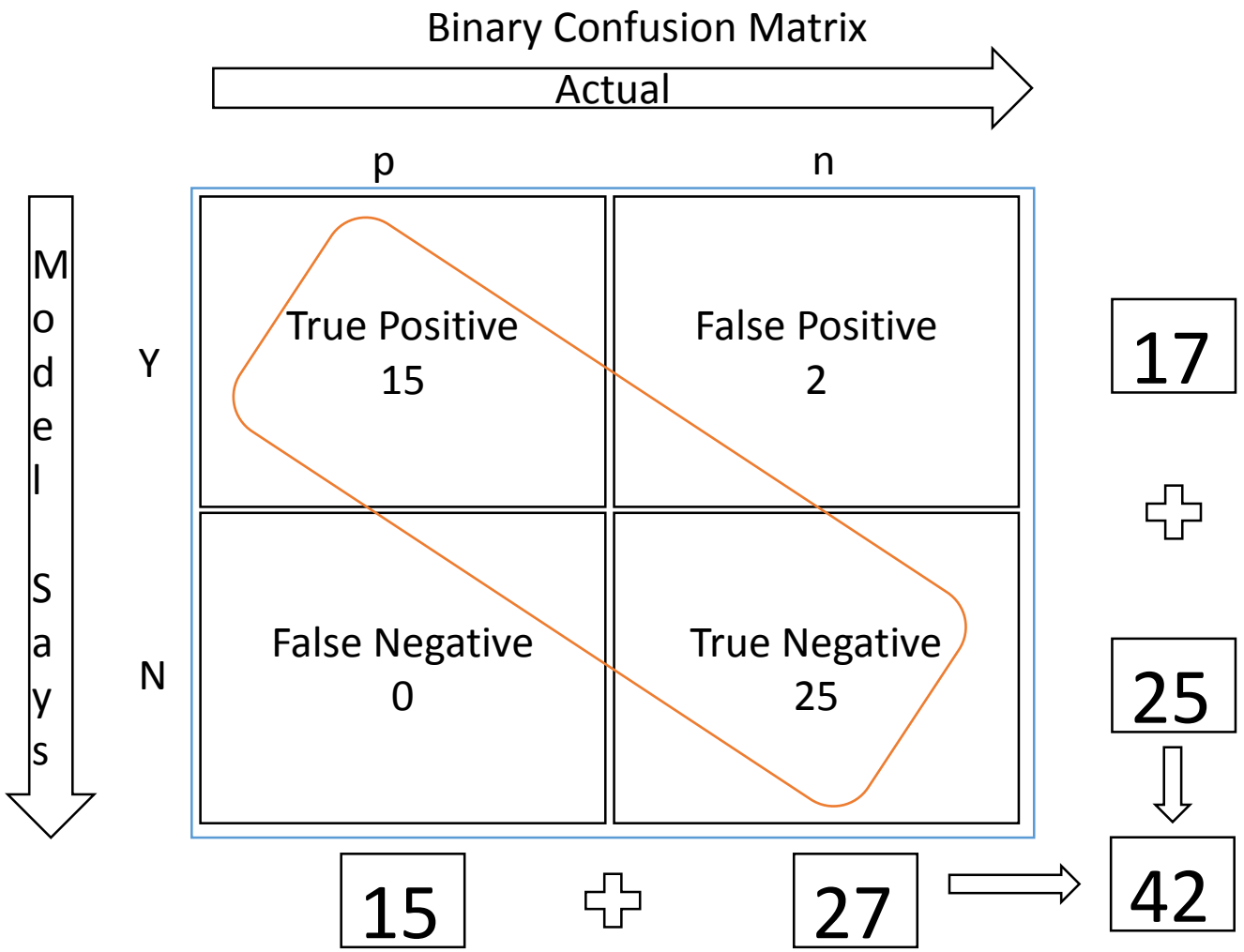

Start
Get Data
Shuffle (randomize the indices)
Choose a different model
train_data
Features
test_data
Labels
Train (fit) the model
Predict using the model
Compare Model Prediction with Test data labels
Predicted Labels
Is the model adequate?
NO
YES
Release the model into production

Binary Confusion Matrix

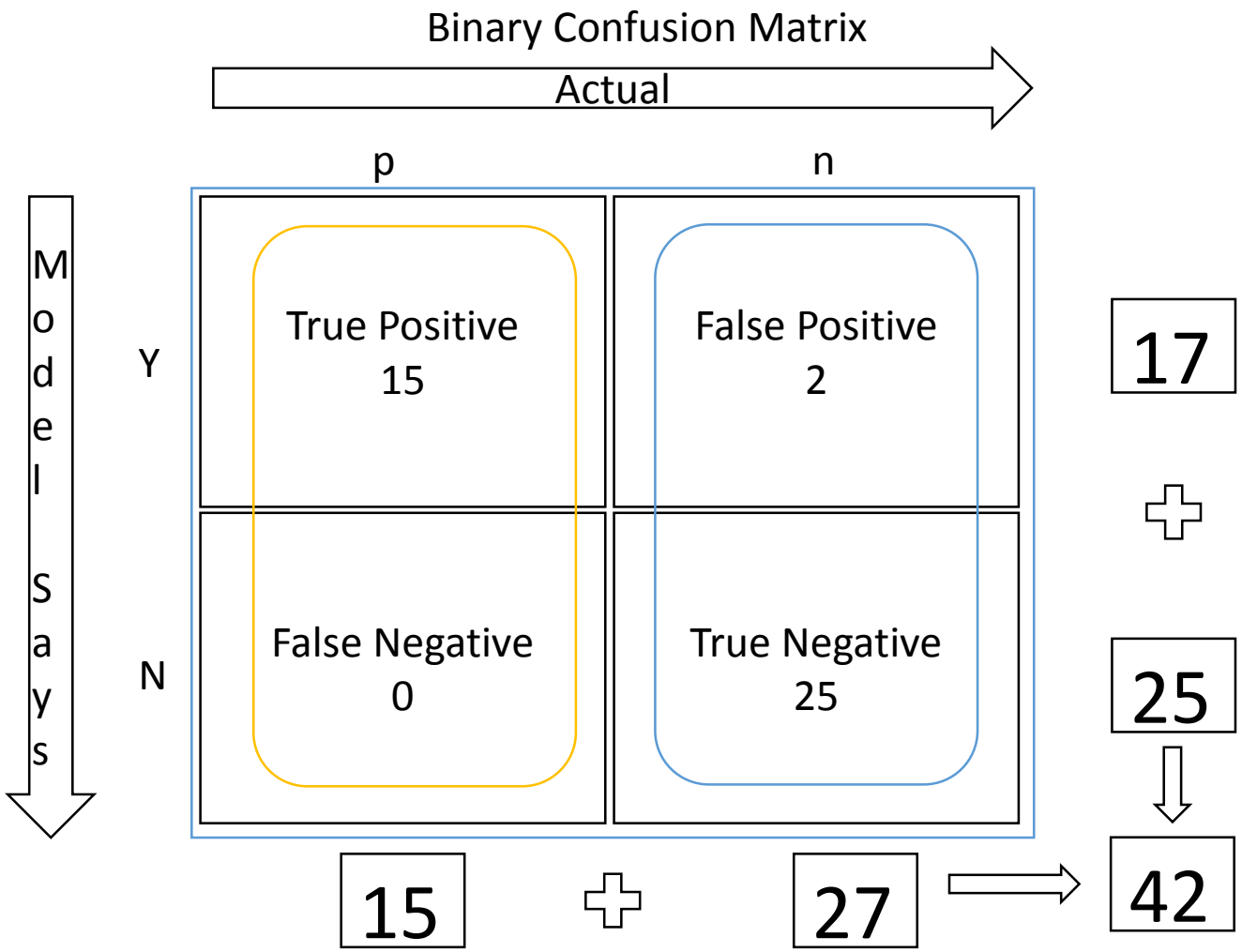



Binary Confusion Matrix
Actual
p
n
Model Says
Y
N
True Positive
15
False Positive
2
False Negative
0
True Negative
25
17
25
15
27
42



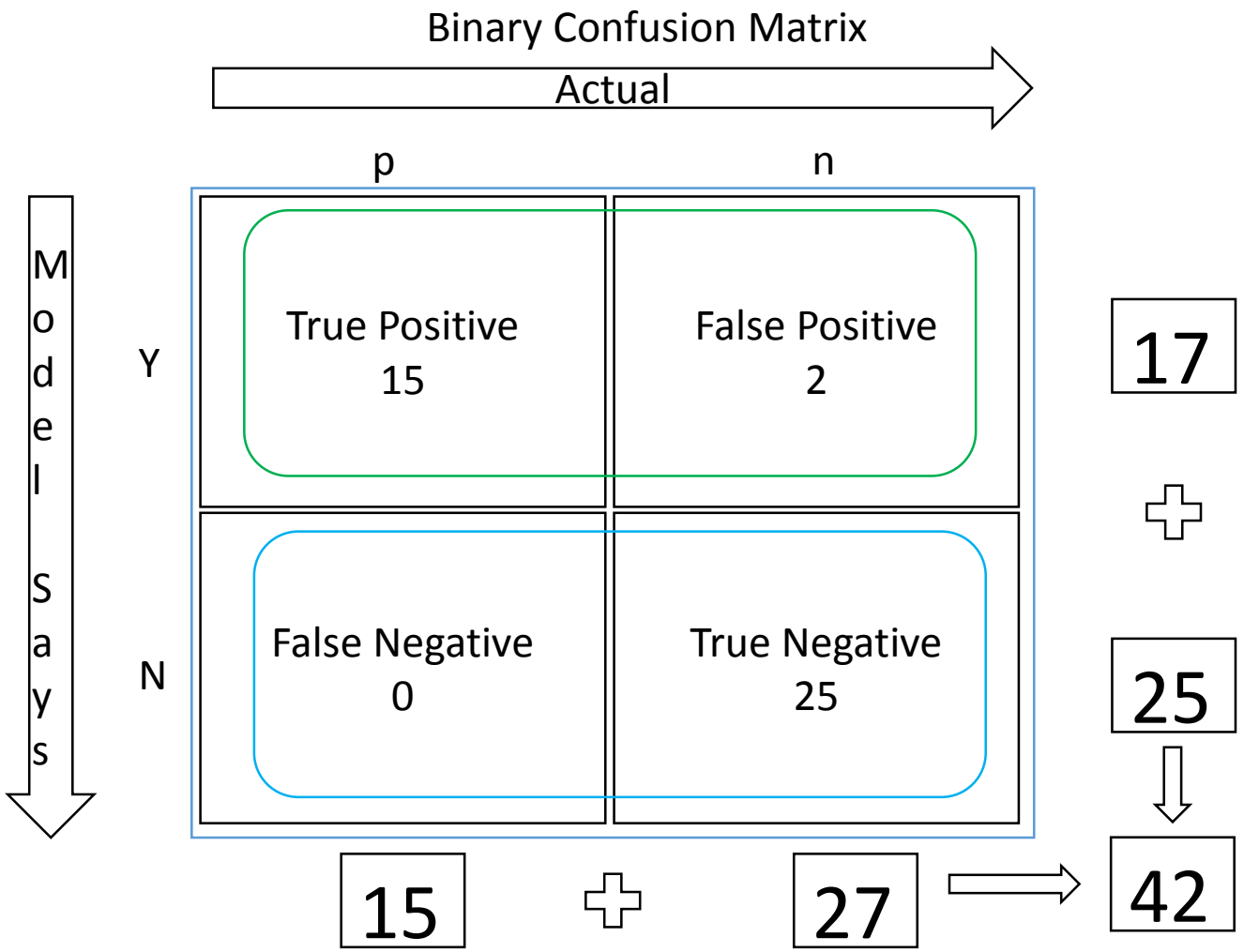
$$Accuracy = \frac{TP + TN}{P + N}$$

$$Accuracy = \frac{TP + TN}{P + N}$$



$$Sensitivity = TPR = \frac{TP}{TP + FN}$$

$$Specificity = TNR = \frac{TN}{TN + FP}$$



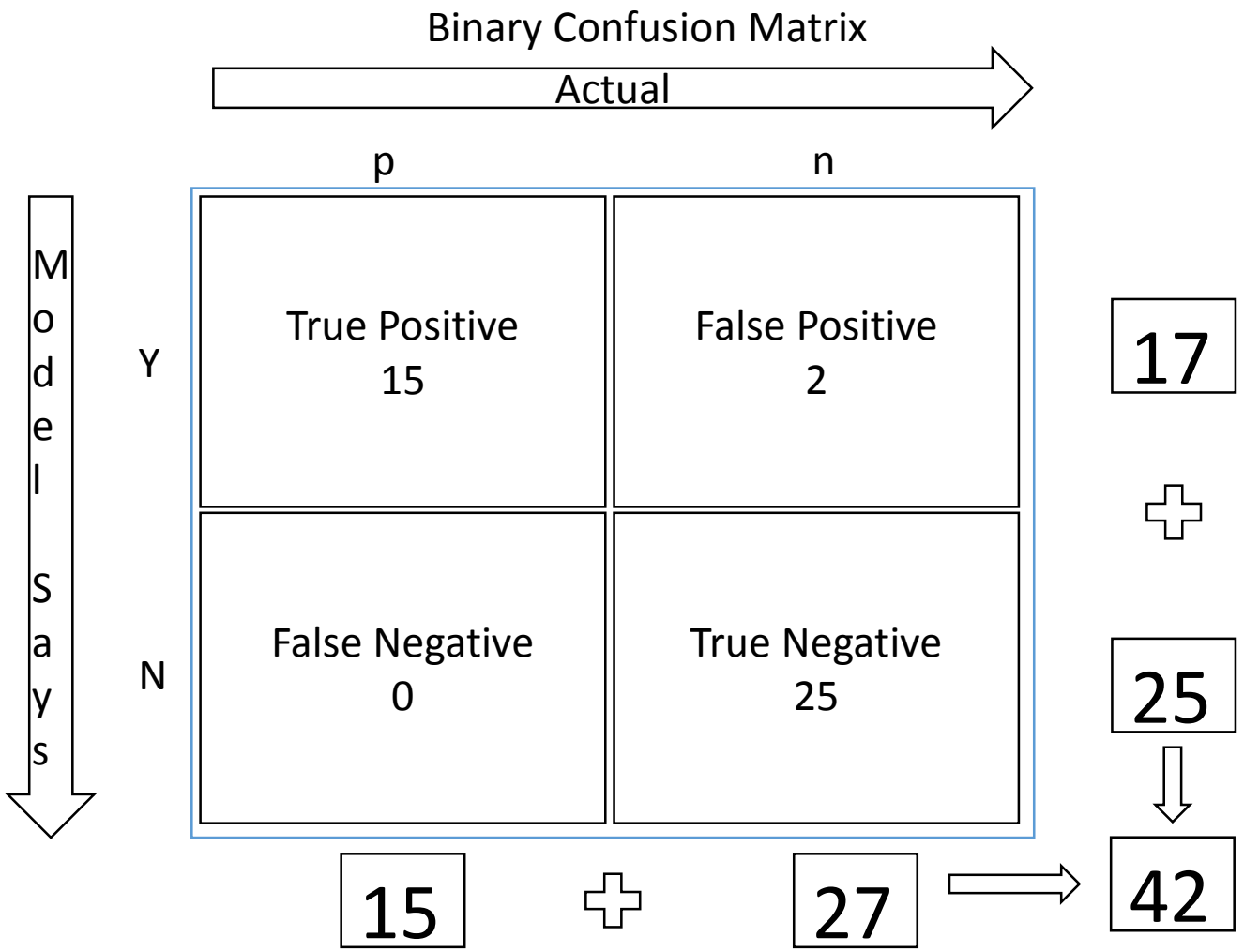
$$Accuracy = \frac{TP + TN}{P + N}$$

$$Sensitivity = TPR = \frac{TP}{TP + FN}$$

$$Specificity = TNR = \frac{TN}{TN + FP}$$

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

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



$$Accuracy = \frac{TP + TN}{P + N}$$

$$Sensitivity = TPR = \frac{TP}{TP + FN}$$

$$Specificity = TNR = \frac{TN}{TN + FP}$$

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

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

$$\text{F-measure} = 2 * \frac{Precision * Recall}{Precision + Recall}$$