=== Run information ===

Scheme: weka.classifiers.trees.J48 -C 4.5 -M 2

Relation: mammographic\_masses.data

Instances: 961

Attributes: 5

Distribution

predictive

any outliers

nominal

ratio

Test mode: 10-fold cross-validation

=== Classifier model (full training set) ===

J48 pruned tree

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any outliers <= 1

| predictive <= 2: FALSE (343.26/37.67)

| predictive > 2

| | predictive <= 3: FALSE (25.86/4.05)

| | predictive > 3: TRUE (6.65/3.07)

any outliers > 1

| predictive <= 3

| | Distribution <= 54

| | | any outliers <= 4

| | | | predictive <= 2: FALSE (38.13/5.49)

| | | | predictive > 2

| | | | | any outliers <= 2: TRUE (2.14/0.14)

| | | | | any outliers > 2: FALSE (19.42/3.64)

| | | any outliers > 4: TRUE (4.17/1.56)

| | Distribution > 54

| | | Distribution <= 78

| | | | any outliers <= 4

| | | | | nominal <= 2: FALSE (6.06/1.39)

| | | | | nominal > 2

| | | | | | predictive <= 2

| | | | | | | any outliers <= 2: TRUE (2.34/0.23)

| | | | | | | any outliers > 2

| | | | | | | | any outliers <= 3: FALSE (8.1/1.37)

| | | | | | | | any outliers > 3

| | | | | | | | | predictive <= 1: FALSE (7.63/3.51)

| | | | | | | | | predictive > 1: TRUE (26.08/12.57)

| | | | | | predictive > 2: TRUE (33.89/12.09)

| | | | any outliers > 4: TRUE (14.52/2.54)

| | | Distribution > 78: TRUE (10.97)

| predictive > 3

| | Distribution <= 60

| | | any outliers <= 3

| | | | nominal <= 2

| | | | | Distribution <= 57: TRUE (2.24/0.11)

| | | | | Distribution > 57: FALSE (2.7/1.0)

| | | | nominal > 2: TRUE (39.5/13.07)

| | | any outliers > 3: TRUE (155.85/49.59)

| | Distribution > 60: TRUE (211.5/27.99)

Number of Leaves : 20

Size of the tree : 39

Time taken to build model: 0.16 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 758 78.8762 %

Incorrectly Classified Instances 203 21.1238 %

Kappa statistic 0.5781

Mean absolute error 0.3068

Root mean squared error 0.4003

Relative absolute error 61.6914 %

Root relative squared error 80.2761 %

Total Number of Instances 961

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0.760 0.178 0.832 0.760 0.794 0.581 0.822 0.814 FALSE

0.822 0.240 0.747 0.822 0.783 0.581 0.822 0.766 TRUE

Weighted Avg. 0.789 0.207 0.793 0.789 0.789 0.581 0.822 0.791

=== Confusion Matrix ===

a b <-- classified as

392 124 | a = FALSE

79 366 | b = TRUE