Capstone 2 Heart Disease Prediction
Model Metrics

Selection criteria: Recall is most important for diagnosis. F1 for a balanced fit is a tiebreaker and AUC of ROC is another tiebreaker.

Recall: SVM RBF, kNN k=7, and RF CV1 and CV2 tied at 83%.
F1: SVM RBF and kNN k=7 tied at 86%. Logistic was third at 85%.
AUC ROC: Logistic and SVM Linear tied at 92%. SVM RBF, RF CV2, and RF D=9 tied at 91.

Model	Recall	F1	AUC of ROC	Precision	Accuracy	R^2
Logistic Regression	79%	85%	92%	92%	87%	.474
Decision Tree	66%	73%	77%	83%	77%	.080
Random Forest (max d=9, gini, 100 trees)	79%	82%	91%	85%	84%	.343
#4. Random Forest CV1 (md=5, entropy, 75 trees, mxfeat=5, minsplit=5)	83%	83%	89%	83%	84%	.343
#3. Random Forest CV2 (md=4, gini, mxfeat=4, 130 trees, minsplit=3)	83%	83%	91%	83%	84%	.343
#2. K Nearest Neighbors k=7	83%	86%	90%	89%	87%	.474
#1. Support Vector Machine (RBF kernel)	83%	86%	91%	89%	87%	.474
Support Vector Machine (linear kernel)	79%	81%	92%	82%	82%	.277