Evaluation Metrics of the Confusion Matrix for the Following Algorithms

Random Forest -Classification Report

	precision	Recall	F1-score	Support
0	0.93	0.92	0.92	85
1	0.86	0.88	0.87	49
accuracy			0.90	134
Macro Avg	0.89	0.90	0.90	134
Weighted Avg	0.90	0.90	0.90	134

Questions:

1. What is the **overall performance** of the model?
2. What is the percentage of **correct classification** of each **respective class?**
3. What is the percentage of **correctly and wrongly classified individuals** of each class?
4. How will you **validate your model** if the recall value is low and the precision value is high?
5. What is the **Average precision performance?**
6. What is the **Average recall performance?**
7. What is the **Average F1 measure performance?**
8. What is the **weight or proportion** of each participating class?

Decision Tree – Classification Report

	precision	Recall	F1-score	Support
0	0.90	0.89	0.90	85
1	0.82	0.84	0.83	49
accuracy			0.87	134
Macro Avg	0.86	0.87	0.86	134
Weighted Avg	0.87	0.87	0.87	134

Questions:

1. What is the **overall performance** of the model?
2. What is the percentage of **correct classification** of each **respective class?**
3. What is the percentage of **correctly and wrongly classified individuals** of each class?
4. How will you **validate your model** if the recall value is low and the precision value is high?
5. What is the **Average precision performance?**
6. What is the **Average recall performance?**
7. What is the **Average F1 measure performance?**
8. What is the **weight or proportion** of each participating class?

Support Vector Machine – Classification Report

	precision	Recall	F1-score	Support
0	0.76	0.96	0.85	85
1	0.88	0.47	0.61	49
accuracy			0.78	134
Macro Avg	0.82	0.72	0.73	134
Weighted Avg	0.81	0.78	0.76	134

Questions:

1. What is the **overall performance** of the model?
2. What is the percentage of **correct classification** of each **respective class?**
3. What is the percentage of **correctly and wrongly classified individuals** of each class?
4. How will you **validate your model** if the recall value is low and the precision value is high?
5. What is the **Average precision performance?**
6. What is the **Average recall performance?**
7. What is the **Average F1 measure performance?**
8. What is the **weight or proportion** of each participating class?