People often confuse Precision, Recall, and Accuracy.
The attached picture hopefully clarifies this.

A sniper has high precision (kills only enemies) - but low recall (not all of them).

A nuclear bomb has high recall (kills all enemies)- but bad precision
(also kills lots of friendly targets).

Precision = True_Positives/Predicted_Positives

Recall = True_Positives/Actual_Positives

Accuracy = sum(Diagonal) / sum(ALL)

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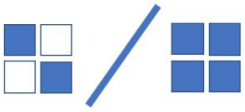
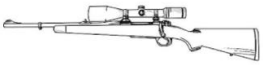


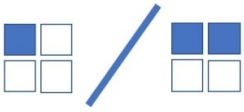
		Predicted class: P	Predicted class: N
Actual Class	P	True Positives (TP)	False Negatives (FN)
	N	False Positives (FP)	True Negatives (TN)

Precision = TP / (TP+FP) = TP / Predicted_Positives



Sniper
- high precision (zero FP)
- low recall (can't get everything)

Recall = TP / (TP+FN) = TP / Actual_Positives



Nuclear Bomb
- low precision (many FP)
- high recall (get everything)