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Natural Language Processing
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Problem Set 5

Question 1 – Precision and Recall

1. Identifying cases where a cancer-curing drug has a side effect of nausea.
Recall is more important since it only looks at cases which are relevant, it doesn't deal with irrelevant cases. Relevant cases refer to patients who took a cancer-curing drug and experienced nausea. When we identify this case, recall is more important because we want to see out of how many total relevant cases were we able to identify cases where the drug had a side effect of nausea.

2. Identifying cases where a cancer-curing drug has a side effect of death.
Recall would obviously also be more important in this case similar to the previous case because both deal with medicine and the livelihood of a human being. If we looked at precision for identifying this case or the previous one it would tell us how many people were affected by the respective side effects out of all the other side effects In fact, recall is used in medical science, but it goes by the name of specificity.

3. Identifying case running red lights.
Precision would be more important in this case because we would be looking at how many red lights were run (relevant cases) versus how many people didn't run red lights and did run red lights (total hits). This would help us indicate if an area has a lot of people running red lights and therefore people could be warned to be more cautious in that area.

4. Identifying and removing weeds that look like (desired) native flowers in your garden.
Precision is more important in this case because we want to see how many 'hits' correctly identified the weeds. The precision would calculate how many weeds were detected out of all the flowers.