1.

a.

i. *Stephanie's family moved when she was six, and before her first day at a new school her parents told her that being pleasant and outgoing with strangers is a great way to meet people and make new friends. Her family moved seven more times by the time she finished high school, and she always made an effort to be pleasant and outgoing with her new classmates. In every new school she developed friends quickly, so there must be something correct about her parents' advice*

In this argument, the hypothesis is being pleasant and outgoing with strangers is a great way to meet people and make new friends. The first observable is Stephanie made an effort to be pleasant and outgoing with her new classmates. The second observable is Stephanie developed friends quickly in every new school she went to. The form of induction by confirmation is "if hypothesis, then observable 1, observable 2, etc.; observable 1, observable 2, etc.; therefore, it is probable that hypothesis. Using the form mentioned, it is probable that the hypothesis (being pleasant and outgoing with strangers is a great way to meet people and make new friends) is true. This is a confirmation instance because the observations agree with the prediction.

H: being pleasant and outgoing with strangers is a great way to meet people and make new friends.
O1: Stephanie made an effort to be pleasant and outgoing with her new classmates.
O2: Stephanie developed friends quickly in every new school she went to.
O1 and O2 are observed.
Then H: then it is probably true that being pleasant and outgoing with strangers is a great way to meet people and make new friends.

ii. *The defendant insists that he didn't intend to shoot his wife. But the only conclusion that fits the facts is that he did intend to kill her. If he intended to do it, then he would have purchased the gun ahead of time, which he did. He would have taken her to a secluded place, which he did. He would have arranged an alibi, which he did. He would have had a motive, which he does. All the evidence you have heard supports the conclusion that he intended to kill his wife, and you should therefore find him guilty of first-degree murder*

In this argument, we can see that the hypotheses are that he intended to kill his wife, he would have purchased a gun ahead of time, he would have taken her to a secluded place, he would have arranged an alibi, and he would have had a motive. The observables are he did purchase a gun ahead of time, he took her to a secluded place, he arranged an alibi, and he does have a motive. According to the argument form of induction by confirmation, it is probable that the main hypothesis (he intended to kill his wife) and the rest of them are all true. This is a confirmation instance since the observations agree with the prediction.

H: he intended to kill his wife, he would have purchased a gun ahead of time, he would have taken her to a secluded place, and he would have arranged an alibi.

O1: he bought a gun ahead of time
O2: he took her to a secluded place
O3: he arranged an alibi
O4: he does have a motive
O1, O2, O3, and O4 are all observed.
Then H: then it is probable that he intended to kill his wife.

iii. *For several years Alfred had been bothered by insomnia. He had a hunch that it was caused by drinking coffee during the evening, so he began keeping a record of when he drank coffee in the evening and whether or not he suffered insomnia that night. After a month he analyzed his records and discovered that on 17 of the 18 nights when he suffered insomnia he had drunk coffee after 8 p.m. and on 11 of the 12 nights when he did not suffer insomnia he had drunk no coffee at all. He concluded that it was the coffee that caused his insomnia.*

In this argument, the hypothesis is the insomnia Alfred was bothered by was caused by drinking coffee during the evening. The first observable here is that when he analyzed his records, he discovered that on 17 of the 18 nights when he suffered insomnia, he had drunk coffee after 8 p.m. The second observable is when he did not suffer insomnia, he had drunk no coffee at all. According to the argument form of induction by confirmation, it is probable that the hypothesis is true. This is a confirmation instance since the observations agree with the prediction.

H: the insomnia Alfred was bothered by was caused by drinking coffee during the evening.
O1: on 17 of the 18 nights he suffered from insomnia, he had drunk coffee after 8 p.m.
O2: on 11 of the 12 nights when he did not suffer insomnia he had drunk no coffee after all.
O1 and O2 are observed.
Then H: then it is probably true that the insomnia that was bothering Alfred was caused by drinking coffee during the evening.

b. Analogical arguments by relations have the form of : "x to y is like a to b; a is R to b; therefore, x is R to y

i. *Just as Pavlov's dog salivated whenever it heard a bell ring, so can my kids get excited whenever they hear the theme song to Hockey Night in Canada. Pavlov's dog started salivating because it associated the sound of the bell with food. I suppose my kids associate the theme song with the fun of watching a hockey game.*

x to y: the kids get excited whenever they hear the theme song to Hockey Night in Canada
a to b: Pavlov's dog salivated whenever it heard a bell ring.
a is R to b: Pavlov's dog started salivating because it associated the sound of the bell with food.
x is R to y: my kids associate the theme song with the fun of watching a

hockey game

ii. *Politicians are like doctors for the country. Like doctors, they are there to cure the ills of an economy. When you go to a doctor, you acknowledge that she knows more about good health than you do, and you happily follow her advice. There is no point in electing politicians if you aren't going to give them a free rein to act once they are in power. Criticising politicians is defeating them and yourself, and it's just as silly as going to the doctor and then refusing to act on her advice.*

x to y: politicians are there to cure the ills of an economy
a to b: doctors are there to cure the ills of an individual
a is R to b: when you go to a doctor, you acknowledge that she knows more about good health than you do and you happily follow her advice
x is R to y: when you elect politicians, you need to give them free rein to act once they are in power. (You acknowledge that they know more about the economy than you do and follow their advice)

iii. *The proposal to give clean needles to prison inmates to stop the spread of the AIDS virus from the use of dirty needles is ridiculous. It is like giving bank robbers normal bullets to stop them from using dum-dum bullets, which are much more damaging to the victim.*

x to y: giving clean needles to prison inmates to stop the spread of the AIDS virus from the use of dirty needles
a to b: giving bank robbers normal bullets to stop them from using dum-dum bullets
a is R to b: giving bank robbers normal bullets to stop them from using dum-dum bullets is more damaging to the victim
x is R to y: giving clean needles to prison inmates to stop the spread of the AIDS virus from the use of dirty needles is more damaging to them.

2. Answer the questions accompanying the following passages in light of the appropriate criteria for the kind of argument in each passage.
   a. A few years ago, Ann Landers asked the women readers of her newspaper column to send her a card stating which they would prefer: "to be held close and treated tenderly," or to have sex. Of the 90,000 people who replied, 72 per cent said they would prefer the former. She concluded that most women preferred being held close and treated tenderly to having sex. How strong is this inductive generalization?

      In this argument, since the sample is made up of women and the population, we care about is also made up of women. Therefore, the sample is representative of the population; assuming these women readers are diverse in their backgrounds and the % distribution of the sample

is similar to that of the population. We can also tell that the sample is not biased. The sample size also was huge (90,000). As we know, the larger the sample, the stronger the argument. The population here is homogeneous, therefore we have less need for larger samples. All the previously mentioned factors can make us say that this is a strong inductive generalization.

b. Fifty per cent of those who voted in the 2000 federal election voted for a Liberal candidate, presumably because they wanted a Liberal government. Many people concluded from this that 50 per cent of all Canadians wanted a Liberal government. Is this a reasonable conclusion?

Fifty percent of voters voting for the liberal candidate means nothing other than they voted for the liberal candidate. This topic and whether the voters voted for the liberal candidate because they wanted them are totally unrelated. One reason they might have voted for the liberal candidate is that they disliked what the liberal candidate promised the least. Another reason might be they disliked the liberal candidate the least. These 2, for instance, do not mean they wanted a liberal candidate. They could mean that they did not want the other candidates and/or their promises.

c. The following passage comes from a seventeenth-century author whose information about other planets in the solar system was much more limited than ours. Even so, what problems might one of his contemporaries have spotted in the argument? *We may observe a very great similitude between this earth which we inhabit, and other planets, Saturn, Jupiter, Mars, Venus, and Mercury. They all revolve round the sun, as the earth does, although at different distances and in different periods. They borrow all their light from the sun, as the earth does. Several of them are known to revolve around their axis like the earth and, by that means, must have a like succession of day and night. Some of them have moons that serve to give them light in the absence of the sun, as our moon does to us. They are all, in their motions, subject to the same law of gravitation, as the earth is. From all this similitude, it is not unreasonable to think that those planets may, like our earth, be the habitation of various orders of living creatures. There is some probability in this conclusion from analogy*

This passage is filled with knowledge about the similarities between earth and other planets in how they revolve around the sun, how they all have gravity, and so on. However, these stated facts are not related to life on these planets. If he is correct about life being existent on other planets, his argument should be stating facts about how the creatures inhibiting other planets will have survival needs that are similar to ours. This passage does not mention anything about those needs, however, the similarities stated are totally unrelated to life being existent on other planets. Therefore, it would make sense to deem his conclusion flawed.

d. When medical treatment is unsuccessful and the patient dies or is permanently incapacitated, many people feel that the doctor must be guilty of negligence, and the patient or the family often launches a suit for medical malpractice. Is this

reasonable, given that the reasoning that lies behind all treatment decisions must be inductive in nature?

The reason medical treatment can go unsuccessful, and the patient dies or is permanently incapacitated is not always malpractice or negligence. Most, if not all, of the time, doctors do their best and try all the possible solutions taught in medical school to get the patient back to full health and to do their activities. Sometimes they run out of options. The emotions of the patients and their relatives could “convince” them that it was the doctor’s fault. In most cases, it won’t be malpractice or negligence. In such cases, which is what happens most of the time, it would be unreasonable to sue the doctors. Especially when they do their job fully.