

NAME: _____

Philosophy 1104: Critical Thinking

Practice Quiz #5

TIME: 60 minutes

1. For each of the following arguments identify the *type* of inference (modus ponens, affirming the consequent, modus tollens, denying the antecedent, or a disjunctive argument) and say whether or not it is deductively *valid*. [Note that valid conclusions are *conclusively proved* by the premises, not just supported to some extent.]

- (i) I made myself very clear: You can go to the beach only if you finish your homework. You have not finished your homework. So, I'm afraid, you cannot go to the beach.

Type: _____ Valid? _____

- (ii) Don't worry, you'll pass the exam. After all, people who don't study will fail, but you studied quite a bit.

Type: _____ Valid? _____

- (iii) Yes, global warming is real! If it's real, then we ought to see an increase in extreme weather, such as storms, floods, droughts, and so on. And that's happening right now.

Type: _____ Valid? _____

2. At a certain bank, money has often gone missing, and the branch manager suspects that one of her employees is stealing it. She compiles the following table, showing which of her five employees were at work each day, and the amount of money that went missing that day.

	March 4	5	6	7	8	11	12
Jan	✓		✓	✓		✓	✓
Mike		✓	✓	✓	✓	✓	
Hazel	✓	✓		✓	✓		✓
Curtis	✓	✓		✓	✓	✓	
Dan	✓		✓		✓	✓	✓
	\$210	\$0	\$0	\$90	\$130	\$0	\$75

The branch manager asks you to analyse this table using Mill's methods, and tell her who is probably stealing the money. What do you tell her? Briefly explain your answer, specifying which of Mill's methods you used.

3. According to William P. Castelli, M.D., the director of the Framingham Heart Study, Seventh Day Adventists—whose religion requires them to be vegetarians, to exercise regularly, and not to use alcohol, caffeine or tobacco products—live about 6 years longer than other US citizens.

(i) What conclusions concerning causes and effects can you conclude from this?

(ii) What further study might you undertake in order to reach more definite conclusions?

4. During World War I, the U.S. Navy pointed out in its recruiting literature that the death rate among sailors in the Navy during the Spanish-American War was only 865 per 100,000, which is lower than among the residents of New York during the same period, i.e. 922 per 100,000.

(i) What (would you guess) is the conclusion of the Navy's argument?

(ii) Which of Mill's methods does the Navy seem to be using here?

(iii) Is the Navy's conclusion justified by this evidence? Briefly explain your answer.

5. Criticise the following arguments from analogy by finding the most relevant difference(s).

(i)

Micki: Have you ever had sheep tripe soup?

Darrell: Yes, once, but never again! It was awful!

Micki: You'd try a bowl of *my* tripe soup if I made some, wouldn't you?

Darrell: That's like asking a man who's broken his right leg whether he'll allow you to break his left leg, so he can find out if it hurts as much as the first one!

(ii) I know you think that medical students should be able to re-take exams they fail, but think about it. After they become doctors, they'll be operating on real patients. If they mess up an operation, and the patient dies, can they re-take the operation?

(iii) Living organisms are fantastically intricate and complex, like human artefacts but even more so. The human eye, for example, is just like a video camera, but of extraordinary quality. It has automatic focusing and exposure adjustment, and is extremely high definition. It's even self-repairing, which is pretty neat. Now video cameras are designed by engineers, of course, so there's good evidence that eyes were also designed by someone.

6. For each of the following, comment on the use of statistics, pointing out any flaws.

(i) Jack has just moved to a new city, and is complaining about the weather. "It's just so harsh, so extreme," he moans. A local, somewhat offended, retorts that the year-round average temperature is a very comfortable 17 Celsius.

- (ii) I wouldn't take anti-depressants if I were you. A recent study showed that people on anti-depressants have much higher rates of suicide than those who are not.

- (iii) Campbell isn't going to survive the next election. We did a survey, and only 24% of people agreed with the statement "Gordon Campbell, a convicted criminal, is the right person to lead our province"

- (iv) Some people claim that the new study by Qiu and Hudson totally refutes the old Bennett study. But this is ridiculous. Bennett looked at over 10,000 cases, whereas Qiu and Hudson's sample included only 2,100 cases.

- (v) A lot more men are gay than is commonly realised. A study of 1,300 men in Canadian prisons shows that more than 25% of them have at least one homosexual encounter per year.
