## Comments on Problem Set 9 Brad Skow

1. Which of the Following claims are consequences of van Inwagen's definitions of mereological terms?

Only (i), (ii), (vi), and (viii) were consequences of the definitions.

Remember that there is a difference between some sentence being *true*, and that sentence *following from van Inwagen's definitions*. There are many sentences containing mereological terms which are true but which do not follow from van Inwagen's definitions. (ix) is one possible example: van Inwagen thinks it is true, but it is certainly not true by definition. Similarly for (v) and (x): these are controversial metaphysical theses, not trivial analytic truths. The only sentences which follow from the definitions will be logical truths (actually, they will be logical consequences of "if x = y then x is part of y").

Proof of (ii): Suppose there are two simples, a and b, such that a and b overlap one another. Then there is a z such that z is part of a and part of b. But a is simple; it has only one part, itself. So, since z is a part of a, z = a. But z is also part of b. So a is part of b. Now b is simple, so b has only one part, itself. So a = b. But by hypothesis a is not b. This is a contradiction; so it follows that no two simple things overlap one another.

(iii) is tricky. It does not follow unless you assume that parthood is transitive. That is, if you try to prove (iii) you will need as a premise that if x is part of y, and y is part of z, then x is part of z. But the transitivity of parthood is not included in the definitions. Unlike (ix), (v), and (x), (iii) is not a substantive metaphysical thesis: (almost) everyone believes it is true.

(iv) does not follow, because (as was mentioned in the question), "there are some xs" does not entail "the xs are at least 2 in number."

2. Choose any of the Moderate answers to the Special Composition Question discussed by van Inwagen in section 6 of Material Beings.. Explain the answer in your own words. Then choose one of the van Inwagen's arguments against this answer. Explain and evaluate the argument.

People generally did well on this question. I did want to mention one thing though. It is important, when you represent van Inwagen's argument against (say) Fastening, to make it clear why the argument shows Fastening to be false. One way to do this is to show that, assuming that Fastening is true, you can derive a contradiction. Some answers were not as clear as they could have been about this.

3. Describe three different ways in which a defender of Universalism might resist the argument against Universalism given by van Inwagen in section 8 of Material Beings. Comment briefly on the plausibility of each of these strategies.

People generally did well on this question too, but there were some common ways of describing a Universalist's response to van Inwagen which I want to complain about.

First. If you want to deny the premise that van Inwagen is a biological organism (and that he is a material object), and you don't want to deny that he exists, then you really have to believe that he is some kind of immaterial object. Some wanted to say that van Inwagen is not a material object, but is instead a set of memories and psychological traits. And they thought that this way they avoided having to claim that van Inwagen is an immaterial object. Well, on the face of it, you've just said that he is a <u>set</u> of some kind, and a set is an immaterial object. And that's the only reading of this

response that I can understand. It makes no sense to say that van Inwagen is a memory, or a personality trait, or that he is some memories and personality traits.

Second. You might want to deny the premise that I exist now and I existed 10 years ago. But this is not the way to do it: "I am a new object now"; "I am not the same object I was 10 years ago"; "I' refers to something different in each occurrence in 'I exist now and I existed 10 years ago." The first two seem clearly to be flat-out contradictions. The second is just wrong about the meaning of 'I.'

Third. You might want to deny the premise that I exist now and I existed 10 years ago. But this is not the way to do it: "personal identity is indeterminate. There are cases where it is not clear if the person who entered the philosophy experiment room is the same as the person who came out." That may indeed be true. But van Inwagen has not undergone any crazy brain-tampering operations in the last 10 years, so the fact that sometimes personal identity is indeterminate gives us no reason at all to doubt van Inwagen's premise.

Extra credit: If you're proof looked pretty much like mine, you got credit. Otherwise, you didn't. I skipped some steps in my proof, but it's already pedantic enough.

(ME) For any t, t', if x is part of y at t, and y exists at t', then x is part of y at t'.

(1) Let t and t' be any times. Suppose that the xs compose y at t, and y exists at t'.

Since the xs compose y at t, each of the xs is part of y at t (by definition).

(2) So, by (ME), each of the xs is part of y at t'.

Now we need to show that no two of the xs overlap at t':

Suppose that it is not the case that no two of the xs overlap at t'. That is, suppose that a and b, which are among the xs, overlap at t'.

Then there is a z such that z is part of a at t' and z is part of b at t'.

By (ME), z is part of a at t1 and z is part of b at t.

Then a and b overlap at t.

But by (1), no two of the xs overlap at t (since the xs compose y at t). Contradiction. (3) So no two of the xs overlap at t'.

Now we need to show that every part of y overlaps at least one of the xs at t'.

Let z be any part of y at t'.

By (ME), z is part of y at t.

Then since the xs compose y at t, z overlaps at least one of the xs at t.

That is, there is a w such that w is part of z at t and x is part of one of the xs at t.

By (ME), w is part of z at t' and also part of one of the xs at t'.

So z overlaps at least one of the xs at t'.

(4) Since z was an arbitrary part of y at t', this holds for all parts of y at t'. That is, every part of y overlaps at least one of the xs at t'.

So, by (2), (3), and (4) the xs compose y at t'.

Thus, (\*) for any t, t', if the xs compose y at t, and y exists at t', then the xs compose y at t'.