1. Problem 1 (30 Points)
In the PowerPoint of Lecture 27, slide 21, at the end of the definition of the Pascal "for" loop, why do we have "(Replace m I \bottom, i, o)"?

2. Problem 2 (30 Points)
In the same Powerpoint lecture, slide 23, at the end of the definition of the Pascal "case" statement, why do we have "o (\lambda(v,s).s)"?

3. Problem 3 (40 Points)
Add a 'do' statement (as in the C language) to the denotational semantics specification of Tiny.

4. Problem 4 (30 Points)
Consider the denotational semantics specification of Tiny. Suppose we were to make a single change to the specification of the '+' operator (slide 20 lecture ppt 26). Consider changing the LAST occurrence of s2 to s1, on the next-to-last line. Explain in plain English how the semantics of the Tiny language change due to this change in the specification. Illustrate your argument by constructing a sample Tiny program that illustrates the different semantics.
5. Problem 5 (30 Points)
Why is type checking difficult in the denotational description of Tiny?

6. Problem 6 (40 Points)
Write the denotational description of the 'case' statement in C for Tiny.