1. [2 points] **There is work to submit for this problem. Read it carefully.**

- You may use your one pre-written page of notes, on an 8.5" by 11" standard sheet of paper, with whatever you want written on both sides.
- You are not allowed to use any other resources, including calculators, other notes, or the book.
- You may not use any electronic device or the internet, except to access the Zoom meeting for the exam, to access the exam file itself, to submit your work, or to report technological problems via the Google forms we will provide to do so. The one exception is that you may use headphones (e.g. for white noise) if you prefer, though please note that you need to be able to hear when the end of the exam is called in the Zoom meeting.
- You may not use help from any other individuals (other students, tutors, online help forums, etc.), and may not communicate with any other person other about the exam until **8am on Wednesday** (Ann Arbor time).
- The one exception to the above policy is that you may contact the proctors in your exam room via the chat in Zoom if needed.
- Violation of any of the policies above may result in a score of zero for the exam, and, depending on the violation, may result in a failing grade in the course.

As your submission for this problem, you must write "I agree," and write your initials and UMID number to signify that you understand and agree to this policy. By doing this you are attesting that you have not violated this policy.

2. [7 points] The following parts are unrelated.

a. [4 points]
An invertible function, $g(x)$, has domain and range all real numbers; the following table gives some specific values.

x	-2	-1	-0.3	0	1	2	3
$g(x)$	5	3	1	0	-1	-2	-8

Using this table, write down exact values for the following expressions, or write "not enough information" if there is no way to tell.

i. $g^{-1}(3)$.
ii. $2g^{-1}(g(101))$
iii. $(g(2))^{-1}$.
iv. $g(g(1))$.

b. [3 points] Let $C(t) = e^{t^2+1}$. Find possible functions $A(t)$ and $B(t)$ (with $A(t) \neq t$ and $B(t) \neq t$) such that $A(B(t)) = C(t)$. (Note: there are several possible answers!)