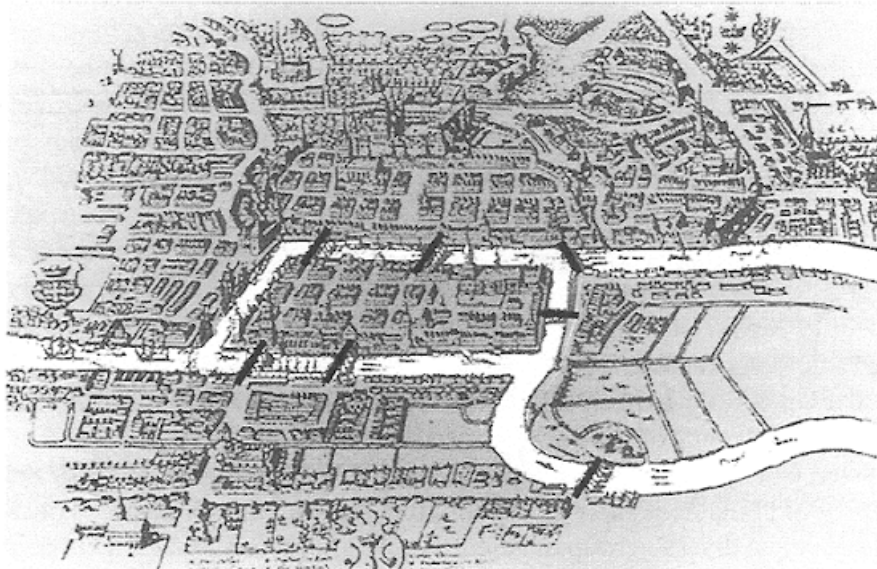


Please answer each question carefully and completely. If you feel a question is ridiculous then you must give a ridiculous answer. Every question on this test can be answered, but snark and clever drawings are accepted as well.

Name: \_\_\_\_\_

1. (20 points) Using watercolors, draw a picture of water:
  
2. (20 points) Which is the shortest Olympic swimming event, in meters?
  - A. 1500 Freestyle
  - B. 75 Sidestroke
  - C. 200 Breaststroke
  - D. 242 Floppy Baby
  - E. 400 I.M.
  - F. sofree
  - G. 400 Medley Relay
  - H. 25 Neckstroke
  
3. (90 points) Every afternoon Immanuel Kant goes for the exact same swim at the exact same time under the bridges of Königsberg. Jean-Jacques Rousseau has challenged him to vary his routine by swimming underneath each of the city's bridges exactly once:



- (a) (30 points) How is this possible?
  
- (b) (30 points) What stroke should Kant swim to meet this challenge? \_\_\_\_\_
- (c) (30 points) Consider your answers to parts *a* and *b*...
  - i. (15 points) Is this solution a synthetic or analytic truth? \_\_\_\_\_
  - ii. (15 points) Can it be true *a priori*? \_\_\_\_\_

4. (15 points) Xiuzhen begins swimming in Astoria, heading West at 3km/h. At the same time, Vetri begins swimming 6741km away in Nemuro, heading East at 2km/h. Assuming both can swim continuously for 3 hours before exhaustion, how close will they get to each other before realizing they're late for swim practice?
5. (10 points) What would happen if a crawlstroker just got up and walked?
6. (11 points) Which of the following are appropriate uses for a kickboard?
- Standing on
  - Throwing
  - Supporting one's upper body while kicking
  - Tasteful charcuterie arrangements
  - Bludgeoning
  - Naming and keeping as a pet
  - Sitting on
  - Surfing on
  - Building a castle between swim sets
7. (5 points) About how far apart, in yards, should one's legs be when doing the dolphin kick? \_\_\_\_\_
8. (40 points) Would you like to have a siphon jet like an octopus to aid in propulsion? If so, why? If not, why not?
9. (30 points) What angle  $\theta$  must your body rotation be less than when finishing the backstroke leg of the I.M.? (Hint:  $\cos \theta = 0$ )
10. (15 points) When should you perform the dolphin kick in breaststroke?
- A. Never
  - B. Immediately after the start, before hitting the water
  - C. Under the full moon while contemplating nature's deepest secrets
  - D. Right before or during the underwater pull at the start of each length
  - E. As the finishing blow in mortal combat against a shark who came back from the future to stop humankind from making a terrible mistake. It was only trying to save us but a tragic misunderstanding led to the seeming inevitability of history. Oh Future Shark, why must we fight? How did it come to this? *\*WHACK\**
  - F. While studying for this exam
11. (25 points) Please provide a complete list of substances stored at Queen Anne Pool that are required to have an NFPA 704-compliant marking or MSDS on file: