

Name: $\qquad$

1. The set is $12 \times 50$ I.M. Order on the $1: 20$. When you started the set the clock was on 60 . You have just finished the seventh one and are about to push off the wall for number eight.
(a) What will the pace clock read when you push off? $\qquad$
(b) What stroke will you be swimming? $\qquad$
2. It's the middle of a long set and the lane leader has pushed off the wall when the pace clock reads 20 seconds. You are the fourth person in the lane. At what time do you push off? $\qquad$
3. It takes Archimedes 18 strokes to swim the length of the pool but Epimenides does it in 15 . Which swimmer, cceteris paribus, has the more efficient stroke? $\qquad$
4. Which of the following most accurately describes the underwater pullout?
A. A long glide followed by a push off the bottom of the pool.
B. A full-body pull with two dolphin kicks, followed by two breaststroke kicks.
C. Streamline breaststoke kick no further than 15 meters.
D. A full-body pull with a dolphin kick, followed by a return to streamline position with a breaststroke kick.
E. All of the above.
5. How long is Queen Anne Pool...
(a) ... in yards: $\qquad$
(b) $\ldots$ in meters $(1 \mathrm{in}=2.54 \mathrm{~cm})$ : $\qquad$
6. How many laps of Queen Anne Pool are there in a mile (5280ft)?
7. What temperature is Queen Anne Pool?
A. Too cold.
B. Too cold.
C. Way too cold.
D. Too warm.
E. Too cold.
F. None of the above.
8. Please write all four competitive strokes in I.M. order:
1: $\qquad$
2 : $\qquad$
3: $\qquad$
4: $\qquad$
9. Define the following terms in the context of swim team:
(a) Major Stroke: $\qquad$
(b) Descending: $\qquad$
(c) Freestyle: $\qquad$
10. Which stroke is the most effective for fleeing/evading. . .
(a) ... a great white shark: $\qquad$
(b) ... a hammerhead shark: $\qquad$
(c) ... The Great Kraken: $\qquad$
(d) ... Coach George: $\qquad$
(e) ... a catfish: $\qquad$
11. How much is $3: 45$ plus $11: 40$ ? $\qquad$
12. Consider the following set:

$$
4 x\left\{\begin{array}{l}
2 x\left\{\begin{array}{l}
4 x 100 \text { I.M. on } 2: 15 \\
3 x 50 \text { Free on } 1: 10
\end{array}\right. \\
8 x 75 \text { Major on } 1: 45
\end{array}\right.
$$

(a) How many yards are there? $\qquad$
(b) How long will it take to swim? $\qquad$
13. What is the difference between $10 \times 50$ Free and 500 Free?
14. If a train leaves Chicago headed west towards Seattle at 80 miles per hour and Sally is swimming laps in a 16 -meter pool located inside one of the train cars, and Sally completes a lap of this pool every 38 seconds, how fast is Sally moving relative to the ground...
(a) ... when she is swimming in the direction the train is moving?
(b) ... when she is swimming in the opposite direction of the train?
(c) Answer a and b, but compensating for Einstein's general relativity.

Show all of your work.
15. In the space provided below, compare Levinas's concept of face-to-face obligation to the other with Kant's theory of adherence to logical principles. How does each ethical theory apply to the passing of a slower swimmer in a lap lane? Use the back of this sheet if necessary.

