

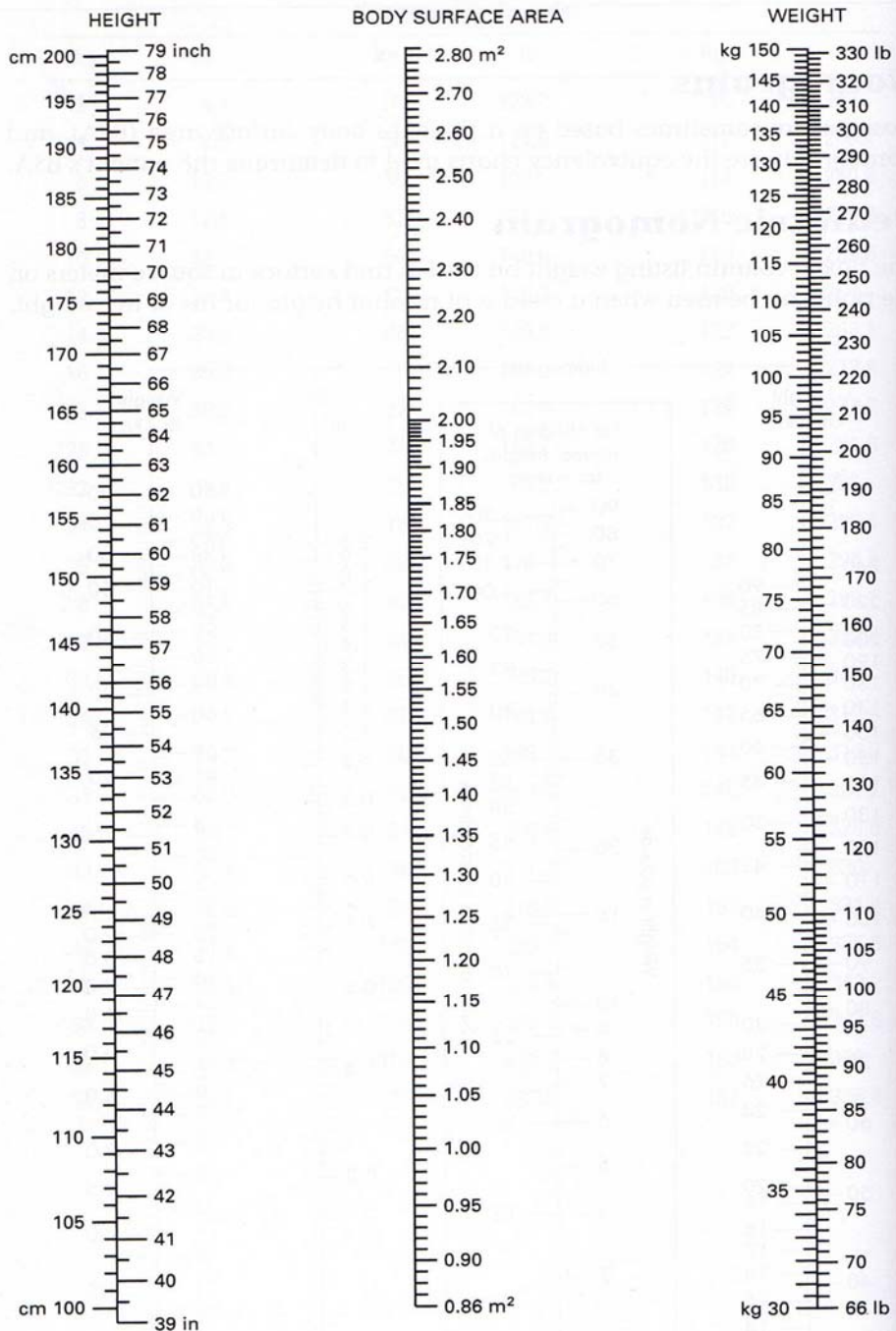
Name: _____

Score: _____ /100

SLCC Math 1020 Mathematics for the Health Disciplines Final Exam

Part I: No Calculator. No books. No notes.

1. Use the nomogram to find the BSA of a 5' 9" tall man weighing 180 lb.
Give your answer correct to 2 decimal places.



(This image is copied from the course textbook.)

2. Convert 17.5% into a fraction, reduce if possible. _____

3. Convert $\frac{17}{8}$ into a decimal, round to two places. _____

4. Convert 0.12 into a fraction, reduce if possible. _____

5. Assume a is not zero and b is not zero.

Simplify. $\frac{(a^5b^{-2})^2}{a^6b^4}$ _____

6. Multiply. Write your answer in scientific notation.

$(5 \times 10^7) \cdot (1.2 \times 10^6)$ _____

7. Use the properties of logarithms to write $7 \log_2 x - 4 \log_2 y$ as a single logarithm. _____

8. Find $\log_4 16$

9. Write 198,300,000,000 in scientific notation. _____

10. Write as a simple fraction. $4^{\frac{2}{7}}$ _____

11. The physician orders 450 mg of Amantadine hydrochloride. Each tablet contains 50 mg. How many tablets would you administer? _____

Interpret the following symbols/notations:

12. npo _____

13. SL _____

14. OS _____

15. AD _____

Converting Units of Measurements.

Complete the following:

16. 8900 mg = _____ g

17. 45 kg = _____ lb

18. 9 mL = _____ cc

19. gr ii = _____ mg

20. 56 oz = _____ cup

21. 6 inches = _____ cm

22. Write 12:51 a.m. in military time. _____

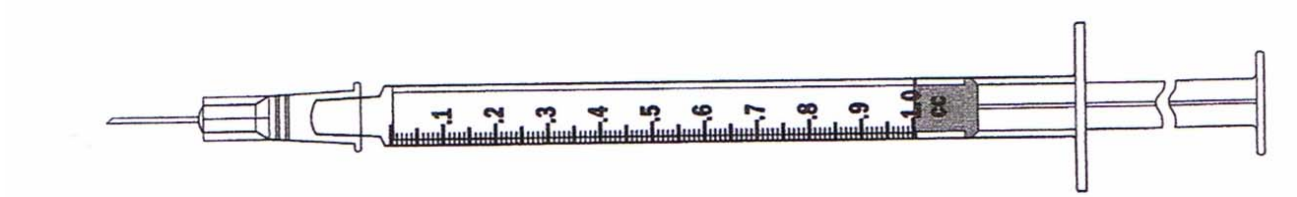
23. Simplify. $\log 10^7$ _____

24. How many grams of dextrose are required to make 4L of a 5% solution? _____

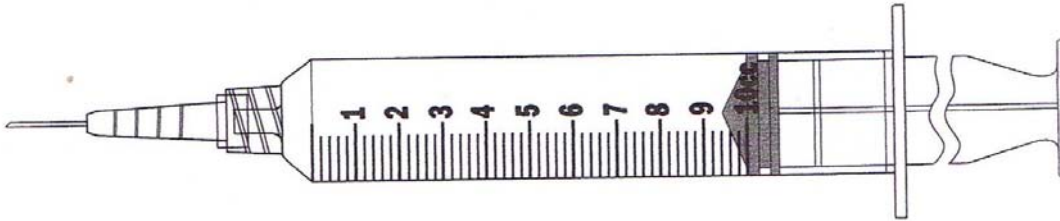
25. The prescription is for 7,500 units sc of heparin. The label on the vial reads 5,000 units per mL. How many milliliters would you give the patient? _____

26. What does BSA stand for? _____

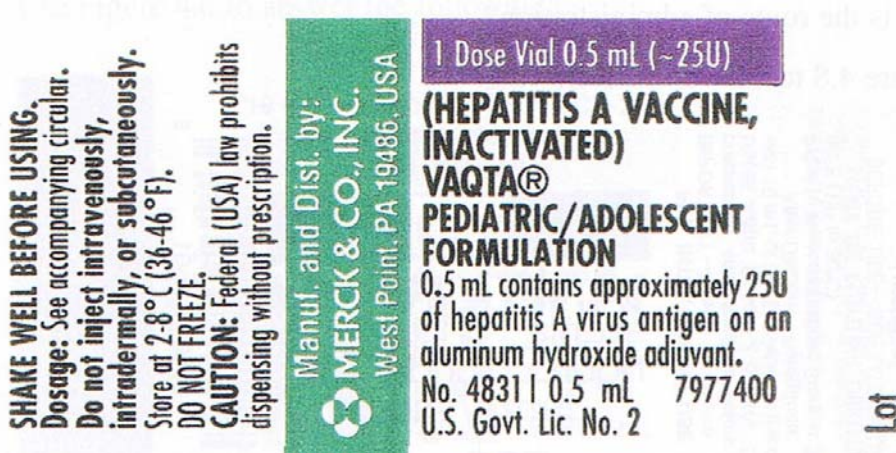
27. Mark the correct volume of 0.54 cc.



28. Mark the correct volume of 6.7 cc.



Complete the following problems by identifying the appropriate label information



(This image is copied from the p. 42 of Essential Drug Dosage Calculation, 4th edition, by Lorrie N. Hegstad and Wilma Hayek.)

29 a. Generic name _____

29 b. Drug strength _____

30 a. Kind of container the drug is dispensed in _____

30 b. Preparation directions _____

Answers:

1. 2.04 m^2
2. $7/40$
3. 2.13
4. $3/25$
5. a^4/b^8
6. 6×10^{13}
7. $\log_2(x^7/y^4)$
8. 2
9. 1.983×10^{11}
10. $7/75$
11. 9
12. nothing by mouth
13. sublingual or under the tongue
14. left eye
15. right ear
16. 8.9
17. 99
18. 9
19. 120
20. 7
21. 15.24
22. 0051 hours
23. 7
24. 200 g
25. 1.5 mL
26. Body surface area
- 27.
- 28.
29. a. Hepatitis A vaccine inactivated; b. 25 U per 0.5 mL
30. a. Vial; b. Shake well before using. See accompanying circular for dosage.