Take – home assignment

Please fill out the following worksheet and turn it in the next lab period. **Yes**, it is the same worksheet as in previous semesters; **yes**, you could just copy it from a friend; and **yes**, you could then fail the questions on the practical as surprisingly many students before you did.

Metric conversion exercise

Please refer to Appendix D for information on metric conversions.

1. Convert 628 nm to m in scientific notation.

2. How many micrometers are in 628 nm?

3. You use 200 mL of 20% (w:v) glucose solution. How many grams of glucose do you use?

4. Rank the following from smallest to largest: 500 μm, 50 cm, 50 dm, 5 mm.

5. How many mm are in each of the following measures: 500 μm, 50 cm, 5 m?

6. Which of the following is the longest? 10^4 cm, 10^4 mm, 10^6 μm, 10^9 nm

7. Which length is the largest? 10^1 cm, 10^{-10} m, 10^2 mm, 1 m

8. Which mass is the smallest? 10^4 μg, 10^2 g, 1 kg, 10^3 mg

9. Express each of the following in micrograms. 10 ng, 10 mg, 10 g, 10 kg

10. How many millimeters are in 10 km?

11. Green light has an average wavelength of 500 nm. How many meters does this represent?