Show all your work to receive full credit on the following problems; carefully organize your solutions so that the work is clear. No calculators or other electronic devices are allowed on this quiz.

1. (12 points) Give a complete Teacher’s Solution (with bar diagram(s) and units) to the following problem: Hannah’s fishbowl can hold 900 mℓ of water and Julie’s can hold 20% more than Hannah’s. Does a full 2-liter bottle of water have enough to fill both fishbowls? If so, how much water will be left in the bottle? If not, how much more do they need?

2. (3 + 3 + 3 = 9 points) Complete the following conversions.
   (a) 0.288 m = __________ cm
   (b) 3 miles = __________ ft
   (c) 72.8 kg = __________ g

3. (4 points) Explain what the difference between $\overrightarrow{PQ}$ and $\overrightarrow{QP}$ is.