

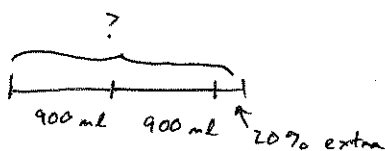
MTH 202 - Quiz 1

11 September 2015

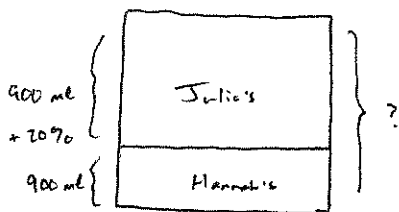
Name: Solutions

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?



or



$$10\% \text{ of } 900 \text{ ml is } 90 \text{ ml } (900 \div 10)$$

$$\therefore 20\% \text{ of } 900 \text{ ml is } 180 \text{ ml}$$

$$\therefore \text{Julie's can hold } 900 \text{ ml} + 180 \text{ ml} \\ = 1080 \text{ ml}$$

$$\therefore \text{Together, they hold } 900 \text{ ml} + 1080 \text{ ml} \\ = 1980 \text{ ml.}$$

$$\therefore \text{The bottle holds } 2000 \text{ ml } (= 2\text{L})$$

$$\text{So we have } 2000 \text{ ml} - 1980 \text{ ml}$$

$$= \boxed{20 \text{ ml left over}}$$

2. (3 + 3 + 3 = 9 points) Complete the following conversions.

(a) $0.288 \text{ m} = \underline{28.8} \text{ cm}$

(b) $3 \text{ miles} = \underline{15840} \text{ ft}$

$$\begin{array}{r} 5280 \\ 3 \\ \hline 15840 \end{array}$$

(c) $72.8 \text{ kg} = \underline{72800} \text{ g}$

$$= \underline{72.80000}$$

3. (4 points) Explain what the difference between \overleftrightarrow{PQ} and \overline{PQ} is.

\overleftrightarrow{PQ} is the line passing through P and Q, extending indefinitely. \overline{PQ} is the segment that ends at P and Q:

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