

Q5. (a)

The minor divisions are 0.1 amps

(b)

Step 1 - We estimate the reading is halfway along the minor division. Thus:

$$\frac{1}{2} \text{ of } 0.1 \text{ amps} = 0.1 \text{ amps} \div 2$$

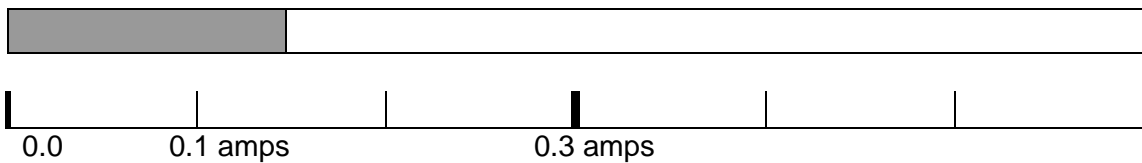
$$= 2 \overline{)0.1}$$

$$= 2 \overline{)0.1^10}$$

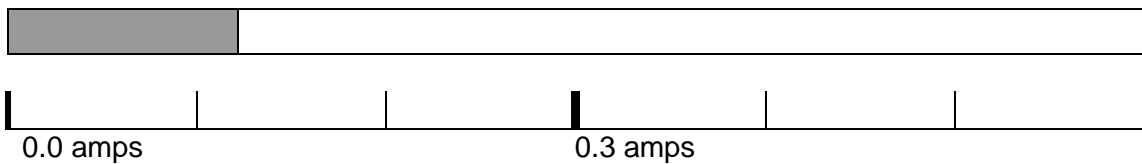
$$= 0.05 \text{ amps}$$

Step 2- We start at 0.1 amps and then we add our estimate of 0.05 amps

$$0.1 + 0.05 = 0.15 \text{ amps.}$$



(c)



Step 1 - We estimate the reading is a quarter of the way along the minor division. Thus:

$$\frac{1}{4} \text{ of } 0.1 \text{ amps} = 0.1 \text{ amps} \div 4$$

$$\begin{aligned} &= 4 \overline{)0.1} \\ &= 4 \overline{)0.10^20} \quad \begin{array}{r} .025 \\ \hline \end{array} \\ &= 0.025 \text{ amps} \end{aligned}$$

Step 2- We start at 0.1 amps and add our estimate of 0.025 amps

$$0.1 + 0.025 = 0.125 \text{ amps.}$$

Step 3 - Normally you would then round this to 2 decimal places because really it is only an estimate. Hence we get 0.13 amps as an estimated reading.

Reading Syringes

The drawings represent 4 different syringes (needles not shown). There is a 1mL syringe, a 3mL syringe, a 100 unit syringe and a 6mL syringe.

For each syringe, please do the following:

(Adapted from Gatford J.D. & Anderson R.E. (1998). *Nursing Calculations*. 5th edn. Edinburgh: Churchill Livingstone. Pp 60-61)

- Record the value of the major divisions.
- Calculate and state the value of the minor divisions.
- Determine the reading at point A and also at point B. For the point B reading you will need to estimate an "in between" reading.

