

# KOGW-PM-KNP: Tutorial 1 - Runeson's Planimeter

June 29, 2016

1. Using planimeter, measure the shape provided. Describe how you did it [1]. What are the qualities of such a measurement [1], compared to say: counting squares\*.
  - Trace the edge of the shape, read off the value.
  - More efficient / Higher precision / No calculations necessary
2. Now try to measure the length of a line with the planimeter. Compare this with using a ruler. Can you think of a way in which you could measure the length of a line using the planimeter, given that it only measures area [1]?
  - Use the area of a known shape to calculate the length (e.g. circle  $Area = \pi radius^2$ ).
3. Consider what methods you employed to solve Task 2. How does this differ from Task 1 [1]? How does this compare to perception vs cognition [1]?
  - You employed a method to solve it rather than just following a instruction.
  - Perception as directly accessing complex data, cognition as calculating complex data.
4. Discuss with your group possible way to differentiate between pseudo-perceptual judgements and true perceptual reports? Use the table below to help, adding any more you can think of [3]. What are the problems with using such distinctions[2]?

Measurement Quality	Perception	Cognition
Precision	High	Low
Stability	High	Low
Time taken	Low	High

Pitfalls [2]

- Spectrum from high to low, with unknown cutoffs between.

- We can't directly access much of our internal functioning.
- Based only on participants verbal reports.
- Accurate cognitive compensation could appear to be perceptual
- Other good comments.

Maximum marks 10/10 \* Counting the number of squares, of known area, within the perimeter of the shape.