

# KOGW-PM-KNP: Ex 1 - Runeson

1. What is the purpose of a polar planimeter? Read the respective paragraph and watch the video on the following website <https://www.youtube.com/watch?v=7R07IWixV1g>. Provide a basic description of the functioning principle of the planimeter.
  - measure the area of irregular shapes
  - measures area by exploiting the mechanics of the device, produces correct output via correct use of the instrument without necessity to calculate anything
2. Explain, in your own words, the difference between smart and rote instruments.
  - smart mechanisms are designed to solve a particular task like a script
  - rote mechanisms are designed in a modular way to solve more complex tasks by cleverly combining the modules, libraries consisting of functions
3. What are, according to Runeson, the two reasons why perception might use smart mechanisms.
  - the to-be processed information and environment are stable
  - design principle of minimal complexity
4. Describe the task given to the PWP (person with a planimeter) by the SPP (sensory psychophysicist). How does PWP solve the task? What conclusion does the SPP draw and what goes wrong?
  - measure the length of a line
  - measure area of circle that has roughly the given line length as radius and computes the line length according to the formula  $A = \pi * r^2$   $r = \sqrt{\frac{A}{\pi}}$
  - variable answers for such a simple task, planimeter is crude and unreliable instrument
5. Describe the task given to the PWP by the CP (cognitive psychologist). How does PWP solve the task? What conclusion does the CP draw and what goes wrong?
  - measure area of an irregular shape - think protocol, introspection!
  - measures area directly
  - discrepancy between accuracy of result and lack of conscious reporting - thesis on unconscious inference
6. Explain, in your own words, the difference between perception and cognition.
  - perception: processes not accessible to introspection
  - cognition: conscious percepts of thought processes, reportable
7. What do you learn from this?