LTCC PROBLEMS 1. 30.9.2013

Q1. Find the areas of:
(i) triangles,
(ii) polygons,
(iii) circles,
(iv) ellipses.

Q2. How can one approximate the area of a general region in the plane, when it exists?

Q3. How can area fail to exist?

Q4. With $\mathbb{Q}$ the set of rationals, does $\int_0^1 I_{\mathbb{Q}}(x)dx$ exist:
(i) as a Riemann integral?
(ii) as a Lebesgue integral? Give the value of the integral when it exists.

NHB