

ES301 – Map Scaling Problem (Part 2)

Attached is a copy of a soil map from the Monmouth Independence area, with an unknown scale. Soil maps are made on bases derived from air photos. Your objective is to determine the scale of the Monmouth-Independence soil map. Using the Monmouth Quadrangle 7.5-minute topographic map and a ruler, identify at least two known points, locate them on the soil map, and determine the fractional scale of the soil map.

$$1.43 \text{ in on soil map} = 1.33 \text{ m on Monmouth quad}$$

$$1.33 \text{ m} \times 24000 \text{ x} = 31920 \text{ in}$$

$$1.43 \text{ m} = 31920 \text{ in} \quad \left. \begin{array}{l} \\ \\ \end{array} \right\} \frac{31920 \text{ in}}{1.43 \text{ in}} = 22,270$$

$$1: 22,270$$

