

ES302 Introduction to Use of Planimeter for Measuring Scaled Map Areas

Read over attached quick start guide for using the digital planimeter, available in the NS218 Lab.

To get started, complete the following.

1. Obtain 10 x 10 graph paper from the counter supplies.
2. Using an architect scale and graph grid, carefully draw two square objects, one with 1-in sides, one with 2-inch sides; and a rectangle = 2 inches by 3 inches (long direction to the north).
3. Consider three different map scales, pencil, paper, and calculator, determine the following areas / fill in table below.

Object	1:1 Scale		1:24,000 Scale		1:63,360 Scale	
	Map Area Sq. in	Ground Area Sq. km	Map Area Sq. in	Ground Area Sq. km	Map Area Sq. in	Ground Area Sq. km
1 x 1 square	_____	_____	_____	_____	_____	_____
2 x 2 square	_____	_____	_____	_____	_____	_____
2 x 3 rectangle	_____	_____	_____	_____	_____	_____

4. Now complete the same exercise above, using the digital planimeter, and following the quick start directions.

Object	1:1 Scale		1:24,000 Scale		1:63,360 Scale	
	Map Area Sq. in	Ground Area Sq. km	Map Area Sq. in	Ground Area Sq. km	Map Area Sq. in	Ground Area Sq. km
1 x 1 square	_____	_____	_____	_____	_____	_____
2 x 2 square	_____	_____	_____	_____	_____	_____
2 x 3 rectangle	_____	_____	_____	_____	_____	_____

Are your answers in 3 and 4 the same? Why or Why not? Should they be?