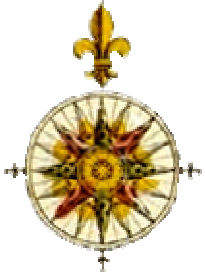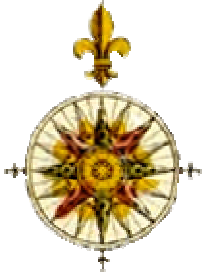# Class 1b:
Introduction to maps

What *is* a map?

- A two-dimensional representation of the spatial distribution of selected phenomena
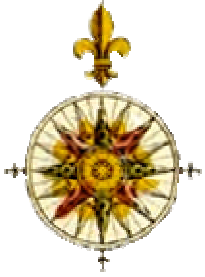
Why make maps?
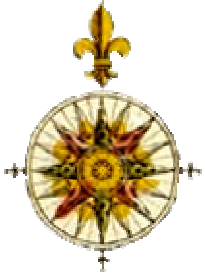
Latitude and longitude
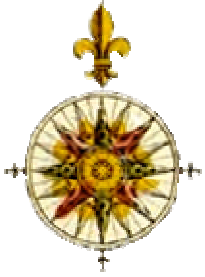
- Latitude: how far north or south

Latitude and longitude
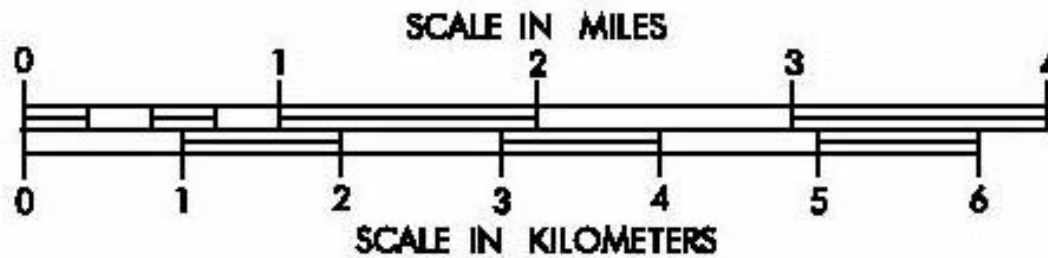
- Longitude: how far east or west
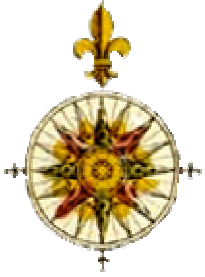
How do we read maps?

Map scale

- Ratio of the distance on the map to the distance on the ground

Map scale
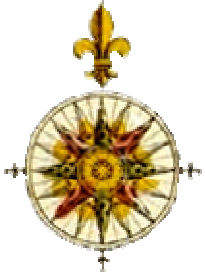
1. Graphic:

Map scale
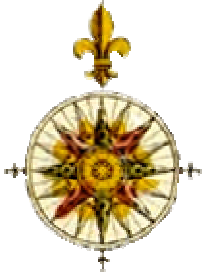
2. Verbal:

       1 inch equals 10 miles

Map scale

3. Representative fraction or ratio:
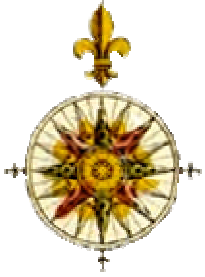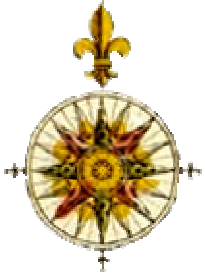
1:24,000

Map symbolization

Point symbols

- Every symbol counts as one occurrence

Line symbols

- One-dimensional

Area symbols

- Each territory or region has one value

Topographic maps

Topographic maps

Topographic maps

Map projections

- Project a round globe onto a flat surface

Map projections

- Three properties to consider

Cylindrical projections

- Shapes are preserved, but not area

Conic projections

Planar projections

Other projections