

Globes and Maps

SOL WG.1c



Globes

- Globes are three dimensional representations of the earth

Advantages of Globes

- Globes are more accurate than maps
- Globes are not distorted

Disadvantages of Globes

- Globes are not portable
- Globes do not show detail
- Globes are more expensive than maps
- There are no thematic globes

Maps

- Maps are two dimensional representations of the earth

Advantages of Maps

- Maps are cheaper than globes
- Maps show detail
- Maps can show themes (thematic maps) and be used for comparing things
- Maps can be put into a book called an atlas
- Maps are portable

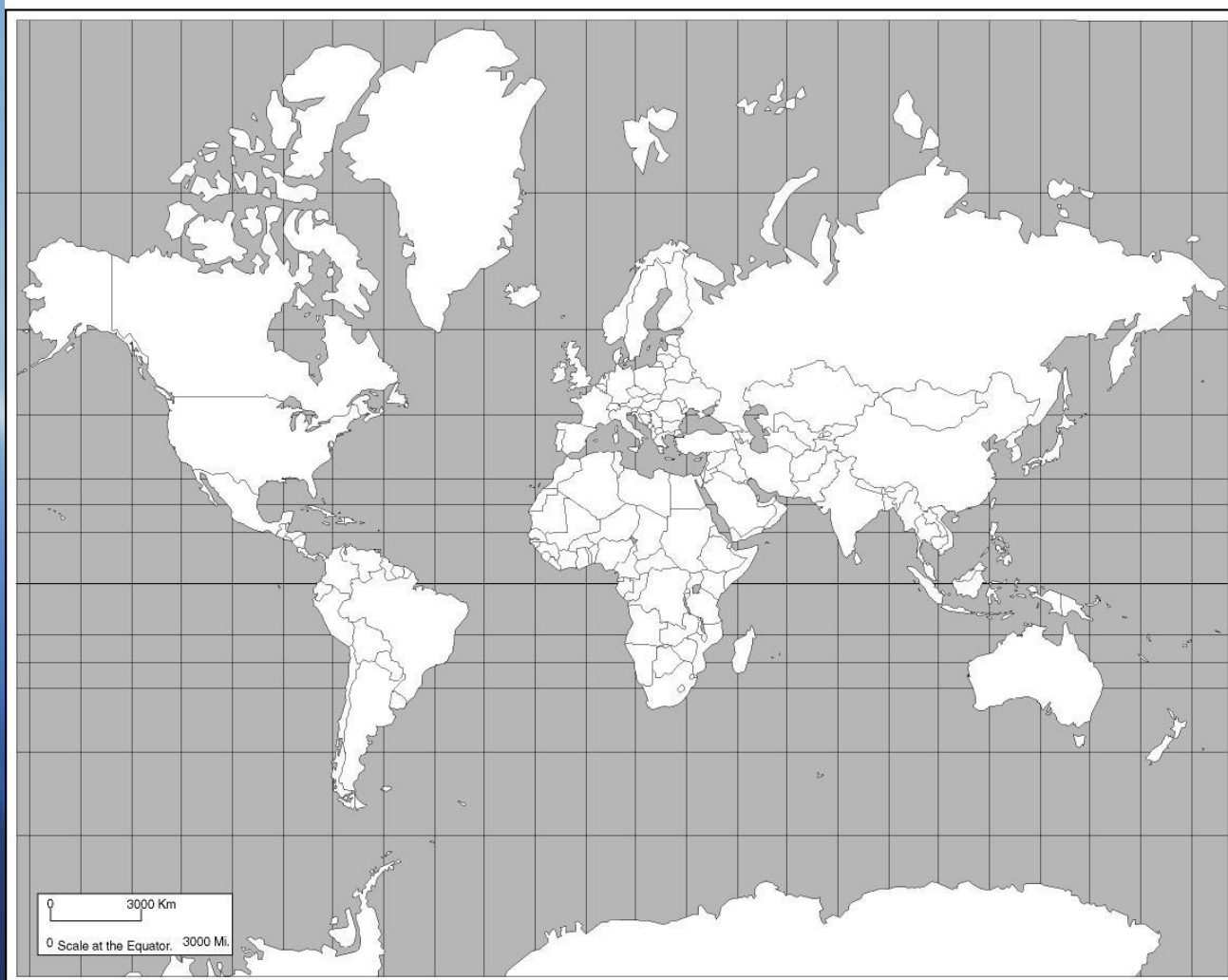
Disadvantages of Maps

- Maps are distorted because the earth is not flat
- Maps can distort shape, area, direction, and distance
- This problem is somewhat solved by different map projections

Map Projections

- Map projections are a way to draw maps in order to lessen distortion. There are different types of projections because people use maps for different reasons.

Mercator



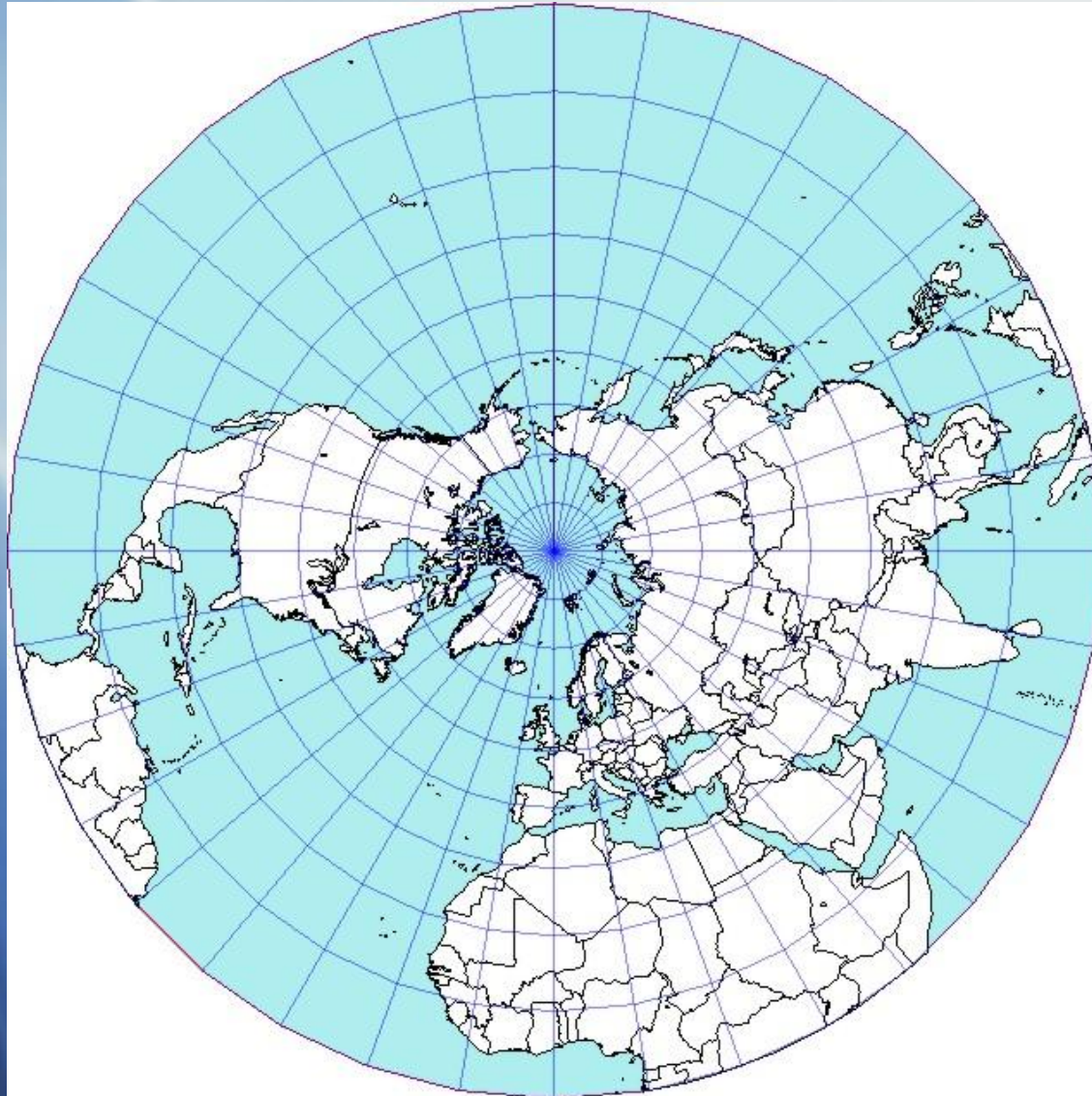
Mercator

- The Mercator is used by ship navigators

How do you identify it?

- a. It is square
- b. The latitude and longitude lines are at right angles
- c. The top and bottom of the map are heavily distorted (Greenland is ginormous!)

Polar



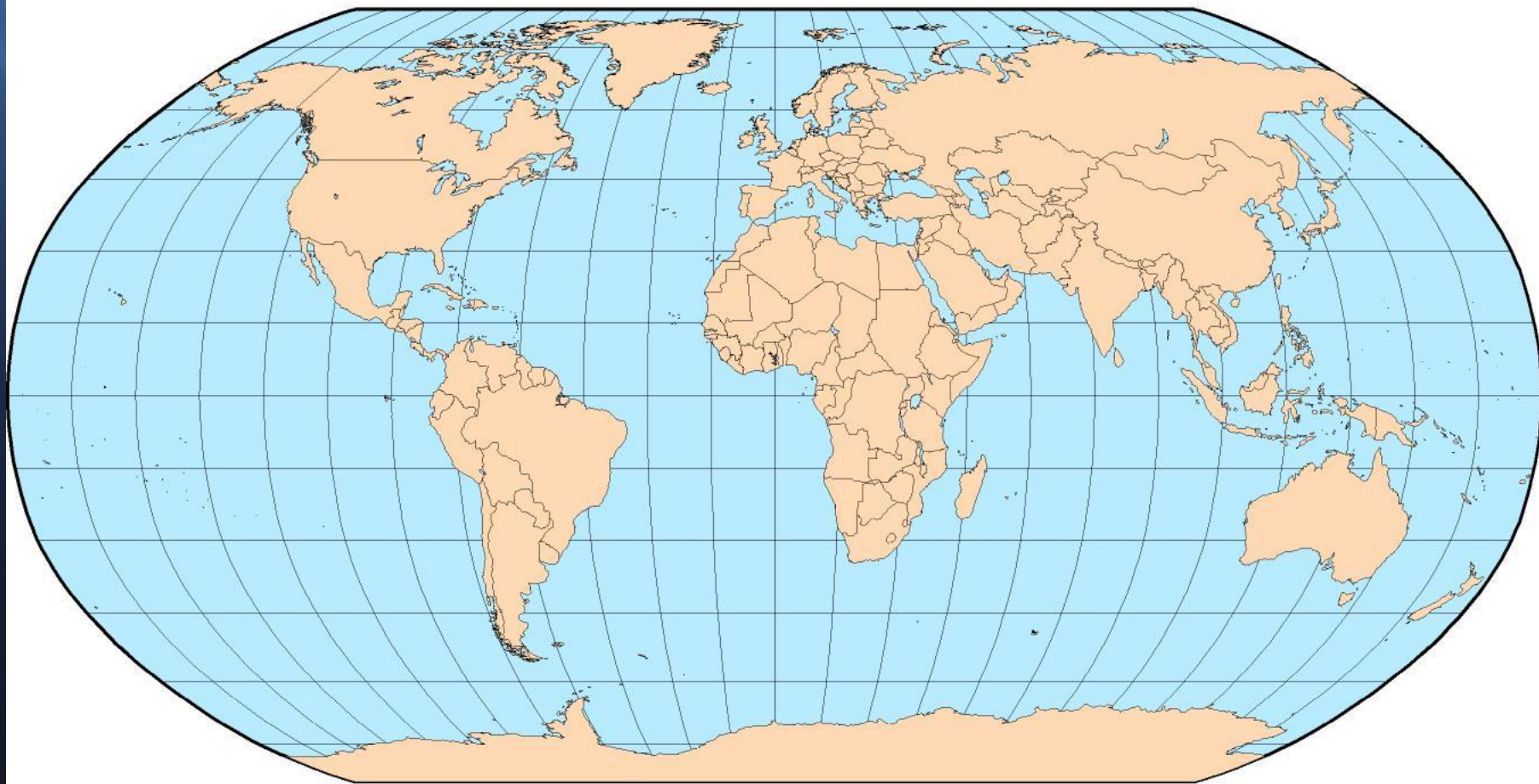
Polar

- The Polar projection is used by airline pilots because it shows the shortest distance between two points

How do you identify it?

- a. It is a circle
- b. It only shows one hemisphere
- c. The latitude lines are circles
- d. The longitude lines radiate from the center

Robinson



Produced by the Cartographic Research Lab
University of Alabama

Robinson

- The Robinson projection is used to compare data.

How do you identify it?

- a. It has curved sides
- b. The longitude lines curve towards the north and south pole

Different Types of Maps

- Political Maps
- Physical Maps
- Topographic Maps
- Thematic Maps
- Cartograms

Political Maps

- Political maps show man-made features such as cities, states, provinces, territories, or countries
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Physical Maps

- Physical maps help you see the type of landforms and bodies of water in a specific area (Page 20)

Thematic Maps

- Thematic maps show specific types of information. Here are some examples of thematic maps:
- Qualitative maps
- Cartograms
- Flow line maps

Thematic Maps

- Other types of thematic maps:
- Population distribution and density
- Economic activity
- Resource
- Language
- Ethnicity

Thematic Maps

- Other types of thematic maps:
- Climate
- Precipitation
- Vegetation

Small Scale Maps

- Maps can be large or small scale
- A small scale map shows a large area but without much detail.
- A small scale is used to see relative location in a region or between regions

Large Scale Maps

- A large scale map shows a small area with much more detail
- A large scale is used to see relative location within a region