Sample Questions for Tests of GEOG380

Q. The size of which body of water is most distorted on a Mercator projection	O	. The	size of	which	body o	of wate	r is most	distorted	on a	Mercator	projection	1?
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- a) Lake Michigan
- b) Arctic Ocean
- c) Bay of Bengal (which is on India's east coast)
- d) Atlantic Ocean
- e) Mediterranean Sea
- **Q.** The distance between two known points on a map is 20 miles. What is the scale of a map on which the points are 1.584 inches apart? (There are 63,360 inches in a mile). Show all work for complete credit.
- **Q.** Which case has potentially less distortion on projections, the tangent or secant case? Motivate your answer.
- **Q.** What is the total number of degrees of longitude in the southern hemisphere of the Earth?
- a) 45
- b) 90
- c) 180
- d) 270
- e) 360
- **Q.** Compute the latitude, longitude location $(11.65^{\circ}, -43.5^{\circ})$ to Degrees, Minutes, and Seconds and label appropriately. Show your work.

Q. Terminology quiz

Provide the correct term (use word bank below) to the following definitions

[2 points each]

a) ______ the term used to describe the true shape of the earth without referring to a mathematical model

b) _____ the scale of the reference globe

c) _____ a projection that preserves distance

Word bank

Azimuth reference maps chart
Loxodrome graticule projection aspect
Geoid symbol dimensions nominal scale
Meridian map projection systematic sampling
antipodal point conformal continuous
ellipsoid classification equidistant
discrete equivalent azimuthal
generalization indicatrix sexagesimal
symbolization census scale factor
population