

any different

cols for differ-
en a bolt,

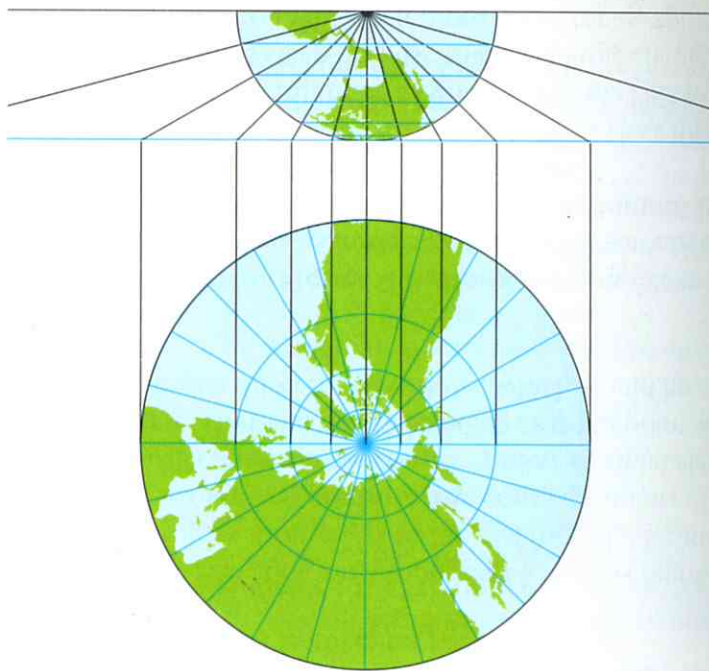
Conic projections A conic projection is made by projecting points and lines from a globe onto a cone, as shown in **Figure 2.6**. The cone touches the globe at a particular line of latitude. There is little distortion in the areas or shapes of landmasses that fall along this line of latitude. Distortion is evident, however, near the top and bottom of the projection. As shown in **Figure 2.6**, the landmass at the top of the map is distorted. Because conic projections have a high degree of accuracy for limited areas, they are excellent for mapping small areas. Hence, they are used to make road maps and weather maps.

Gnomonic projections A gnomonic (noh MAHN-**ihk**) projection is made by projecting points and lines from a globe onto a piece of paper that touches the globe at a single point. At the single point where the map is projected, there is no distortion, but outside of this single point, great amounts of distortion are visible both in direction and landmass, as shown in **Figure 2.7**.

Because Earth is a sphere, it is difficult to plan long travel routes on a flat projection with great distortion, such as a conic projection. To plan such a trip, a gnomonic projection is most useful. Although the direction and landmasses on the projection are distorted, it is useful for navigation. A straight line on a gnomonic projection is the straightest route from one point to another when traveled on Earth.

larger than
Australia.
of land-
lines, they

n a piece of
r the shapes
ons to make
s and lines
a map that
lines of lon-
projected as
; exaggerated
landmasses are



■ **Figure 2.7** In a gnomonic projection, points and lines from a globe are projected onto paper that touches the globe at a single point.

■ **Figure 2.6** In a conic projection, points and lines on a globe are projected onto cone-shaped paper. There is little distortion along the line of latitude touched by the paper.

