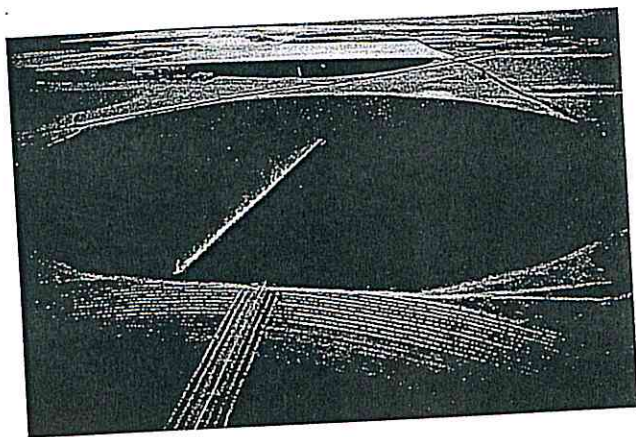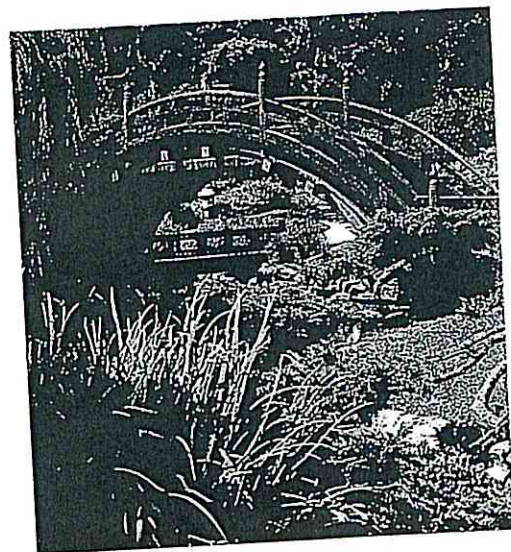# EXERCISES

1. In the photos below, identify the physical models that represent a circle, a radius, a chord, a tangent, and an arc of a circle.
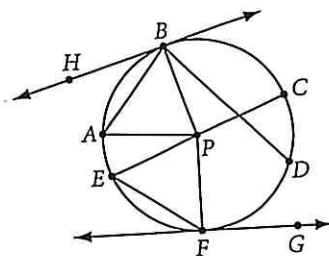

Circular irrigation on a farm

Japanese wood bridge

For Exercises 2–9, use the diagram at right. Points *E*, *P*, and *C* are collinear, and *P* is the center of the circle.

2. Name three chords.

3. Name one diameter.

4. Name five radii.

5. Name five minor arcs.

6. Name two semicircles.

7. Name two major arcs.

8. Name two tangents.

9. Name a point of tangency.

10. Name two types of vehicles that use wheels, two household appliances that use wheels, and two uses of the wheel in the world of entertainment.

11. In the figure at right, what is $m\widehat{PQ}$? $m\widehat{PRQ}$?

12. Use your compass and protractor to make an arc with measure 65°. Now make an arc with measure 215°. Label each arc with its measure.

13. Name two places or objects where concentric circles appear. Bring an example of a set of concentric circles to class tomorrow. You might look in a magazine for a photo or make a copy of a photo from a book (but not this book!).

14. Sketch two circles that appear to be concentric. Then use your compass to construct a pair of concentric circles.

15. Sketch circle *P*. Sketch a triangle inside circle *P* so that the three sides of the triangle are chords of the circle. This triangle is "inscribed" in the circle. Sketch another circle and label it *Q*. Sketch a triangle in the exterior of circle *Q* so that the three sides of the triangle are tangents of the circle. This triangle is "circumscribed" about the circle.