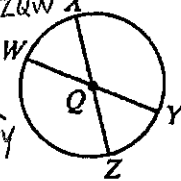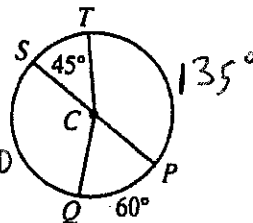# 9–3 Arcs and Central Angles

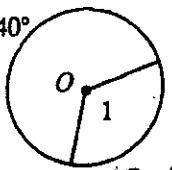**Using the letters shown in the diagram, name:**
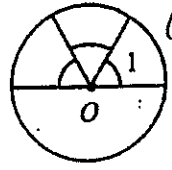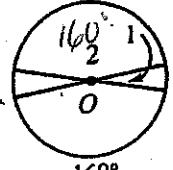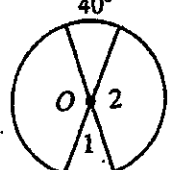
1. four central angles $\angle WQX, \angle XQY, \angle YQZ, \angle ZQW$
2. two semicircles $\overarc{WXY}, \overarc{WZY}$
3. four minor arcs $\overarc{WX}, \overarc{XY}, \overarc{YZ}, \overarc{WZ}$
4. four major arcs $\overarc{WZX}, \overarc{ZYW}, \overarc{YWZ}, \overarc{XWY}$

In $\odot C$, find the measure of each arc or angle named.

5. $\angle PCQ$ $60°$
6. $\overarc{ST}$ $45°$
7. $\overarc{SQP}$ $180°$
8. $\overarc{SQ}$ $120°$
9. $\angle SCQ$ $120°$
10. $\angle SCP$ $180°$
11. $\overarc{SPQ}$ $240°$
12. $\overarc{PT}$ $135°$
13. $\angle TCP$ $135°$
14. $\overarc{SPT}$ $315°$
15. $\overarc{TSQ}$ $165°$

Find the measure of each numbered angle. O is the center of the circle.

16. $240°$ ... $120°$

17. $60°$

18. $160°$ ... $20°$ ... $160°$

19. $40°$ ... $140°$ ... $40°$

The figure shows two concentric circles with center N. Classify each statement as true or false.

20. $m\overarc{BC} = 45$ True
21. $\overarc{AB} \cong \overarc{VW}$ True
22. $m\angle DNC = 90$ True
23. $m\overarc{XY} = 45$ False
24. $\overarc{VW} \cong \overarc{WX}$ True
25. $\overarc{AED} \cong \overarc{VZY}$ True