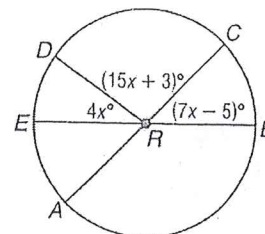


# 10-2 Skills Practice

## Angles and Arcs

ALGEBRA In  $\odot R$ ,  $\overline{AC}$  and  $\overline{EB}$  are diameters. Find each measure.



1.  $m\angle ERD$  28

2.  $m\angle CRD$  108

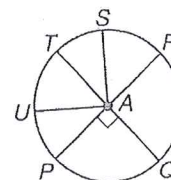
3.  $m\angle BRC$  44

4.  $m\angle ARB$  136

5.  $m\angle ARE$  44

6.  $m\angle BRD$  152

In  $\odot A$ ,  $m\angle PAU = 40$ ,  $\angle PAU \cong \angle SAT$ , and  $\angle RAS \cong \angle TAU$ . Find each measure.



7.  $m\widehat{PQ}$  90

8.  $m\widehat{PQR}$  180

9.  $m\widehat{ST}$  40

10.  $m\widehat{RS}$  50

11.  $m\widehat{RSU}$  140

12.  $m\widehat{STP}$  130

13.  $m\widehat{PQS}$  230

14.  $m\widehat{PRU}$  320

$$\frac{A}{360} = \frac{\widehat{LM}}{2\pi(r)}$$

The diameter of  $\odot D$  is 18 units long. Find the length of each arc for the given angle measure.

15.  $\widehat{LM}$  if  $m\angle LDM = 100$   
 $5\pi \approx 15.71$  units

16.  $\widehat{MN}$  if  $m\angle MDN = 80$   
 $4\pi \approx 12.57$  units



17.  $\widehat{KL}$  if  $m\angle KDL = 60$   
 $3\pi \approx 9.42$  units

18.  $\widehat{JK}$  if  $m\angle NDK = 120$   
 $6\pi \approx 18.85$  units

$$\frac{50\pi}{360} = \frac{\widehat{LM}}{36\pi}$$

19.  $\widehat{KLM}$  if  $m\angle KDM = 160$   
 $8\pi \approx 25.13$  units

20.  $\widehat{JK}$  if  $m\angle JDK = 50$   
 $2.5\pi \approx 7.85$  units

$$\frac{36\pi \cdot 10}{36} = \frac{\widehat{LM}}{36\pi} \cdot 36\pi$$

$$\frac{36\pi \cdot 10}{36}$$

$$10\pi = 5\pi$$