10-3 Practice

Arcs and Chords

In $\odot E$, $m\widehat{HQ} = 48$, $HI = JK$, and $JR = 7.5$. Find each measure.

1. $m\widehat{HI}$ **96**

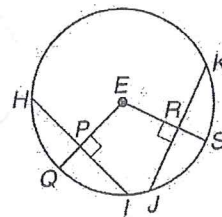2. $m\widehat{QI}$ **43**

3. $m\widehat{JK}$ **96**

4. HI **15**

5. PI **7.5**

6. JK **15**

The radius of $\odot N$ is 18, $NK = 9$, and $m\widehat{DE} = 120$. Find each measure.

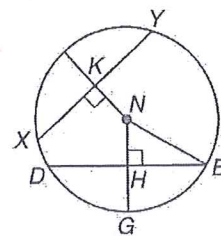7. $m\widehat{GE}$ **60**

8. $m\angle HNE$ **60**

9. $m\angle HEN$ **30**

10. HN **9**

The radius of $\odot O = 32$, $\widehat{PQ} \cong \widehat{RS}$, and $PQ = 56$. Find each measure.
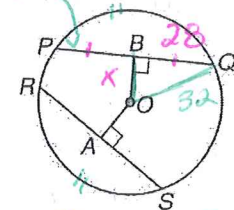
11. PB **28**

14. BQ **28**

12. OB **$4\sqrt{15} \approx 15.5$**

16. RS **56**

$x^2 + 28^2 = 32^2$
$x^2 + 784 = 1,024$
$ -784 \quad -784$
$x^2 = 240$
≈ 15.49

13. **MANDALAS** The base figure in a mandala design is a nine-pointed star. Find the measure of each arc of the circle circumscribed about the star.

Each arc measures 40°