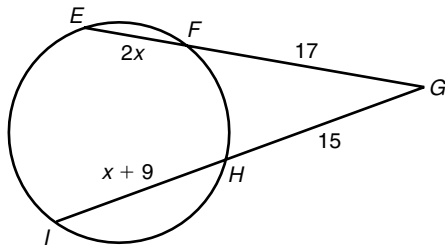


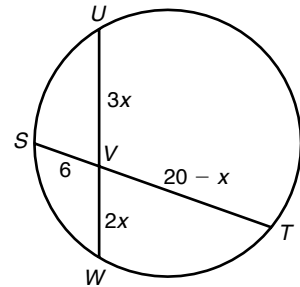
**LESSON**  
**11-6**

**Problem Solving**  
**Segment Relationships in Circles**

1. Find  $\overline{EG}$  to the nearest tenth.

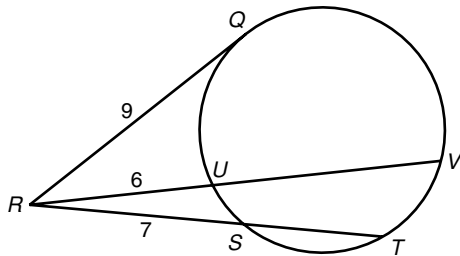


2. What is the length of  $\overline{UW}$ ?



Choose the best answer.

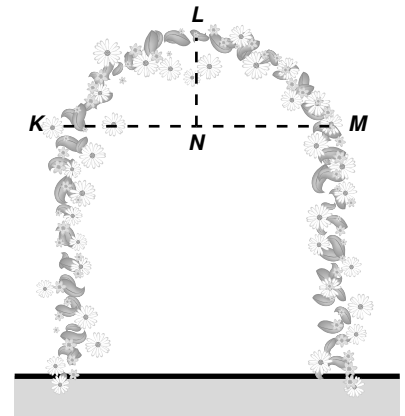
3. Which of these is closest to the length of  $\overline{ST}$ ?



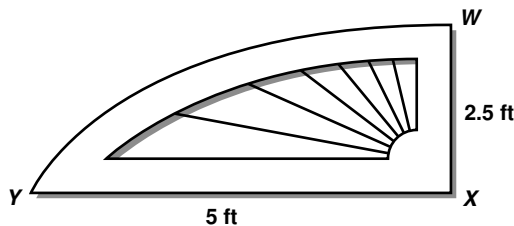
- A** 4.6                      **C** 7.5  
**B** 5.4                      **D** 11.6

4. Floral archways like the one shown below are going to be used for the prom.  $\overline{LN}$  is the perpendicular bisector of  $\overline{KM}$ .  $KM = 6$  feet and  $LN = 2$  feet. What is the diameter of the circle that contains  $\overline{KM}$ ?

- F** 4.5 ft  
**G** 5.5 ft  
**H** 6.5 ft  
**J** 8 ft

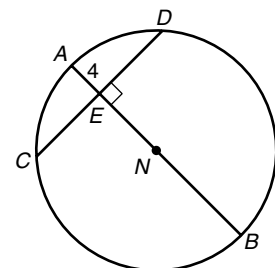


5. The figure is a “quarter” wood arch used in architecture.  $\overline{WX}$  is the perpendicular bisector of the chord containing  $\overline{YX}$ . Find the diameter of the circle containing the arc.



- A** 5 ft                      **C** 10 ft  
**B** 8.5 ft                **D** 12.5 ft

6. In  $\odot N$ ,  $CD = 18$ . Find the radius of the circle to the nearest tenth.



- F** 12.1                      **H** 20.3  
**G** 16.3                      **J** 24.3