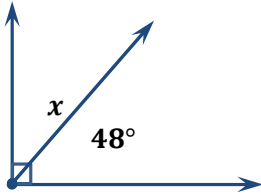


# Measuring Angles Exit Quiz

## ANSWERS

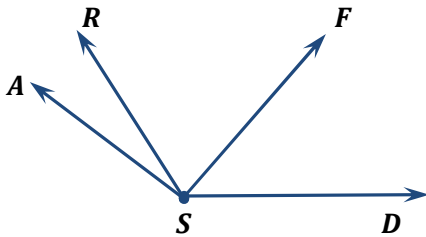
### Multiple choice

1. Find the value of  $x$  in the figure below.



- a. **42°**
- b. 132°
- c. 32°
- d. 90°

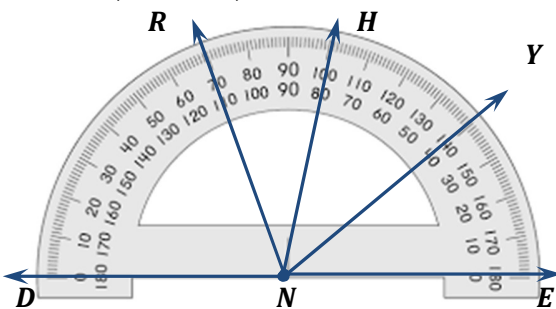
2. Which of the following statements is true?



- a.  $\angle DSA$  and  $\angle DSF$  are obtuse angles
- b.  **$\angle DSF$  and  $\angle RSA$  are acute angles**
- c.  $\angle FSA$  and  $\angle DSR$  are obtuse angles
- d.  $\angle RSA$  and  $\angle DSR$  are acute angles

3. Find the measure of each angle.

$m\angle ENH, m\angle YNH, m\angle HNR = ?$

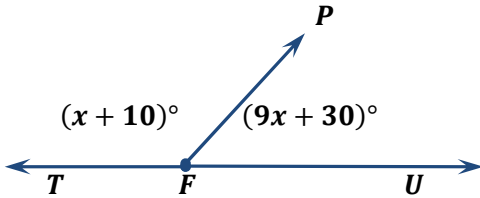


$m\angle ENH = 100$   
 Obtuse angle  
 $m\angle YNH = |140 - 100| = 40$   
 Acute angle  
 $m\angle HNR = |100 - 70| = 30$   
 Acute angle

## Measuring Angles Exit Quiz

4. Find the value of  $x$  and then the indicated angle measures.

If  $m\angle UFP = 9x + 30$ ,  $m\angle PFT = x + 10$ ,  
what are  $m\angle UFP$  and  $m\angle PFT$ ?



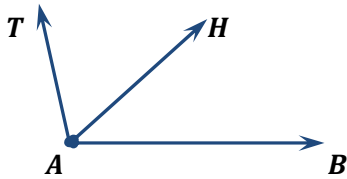
$$\begin{aligned} m\angle UFP &= 9x + 30, \\ m\angle PFT &= x + 10 \\ m\angle UFP &=? \quad m\angle PFT =? \end{aligned}$$

$$\begin{aligned} m\angle UFT &= m\angle UFP + m\angle PFT \\ 180 &= 9x + 30 + x + 10 \\ 180 &= 10x + 40 \\ 180 - 40 &= 10x + 40 - 40 \\ 140 &= 10x \\ x &= 14 \end{aligned}$$

$$\begin{aligned} m\angle UFP &= 9x + 30 & m\angle PFT &= x + 10 \\ m\angle UFP &= 9 * 14 + 30 & m\angle PFT &= 14 + 10 \\ m\angle UFP &= 126 + 30 & m\angle PFT &= 24 \\ m\angle UFP &= 156 & & \end{aligned}$$

5. Find the indicated angle measures.

If  $\overrightarrow{AN}$  bisects  $\angle BAT$  and  $m\angle BAT = 126$ , find  
 $m\angle BAH$  and  $m\angle HAT$ .



$$\begin{aligned} m\angle BAT &= 126 \\ m\angle BAH &=? \quad m\angle HAT =? \end{aligned}$$

$$\begin{aligned} m\angle BAT &= m\angle BAH + m\angle HAT \\ m\angle BAH &= m\angle HAT \\ m\angle BAT &= 2 * m\angle BAH \\ m\angle BAH &= \frac{m\angle BAT}{2} \\ m\angle BAH &= \frac{126}{2} \\ m\angle BAH &= 63 \\ m\angle HAT &= m\angle BAH \\ m\angle HAT &= 63 \end{aligned}$$