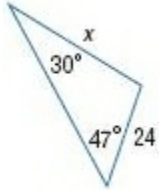


## 8-6 The Law of Sines and Law of Cosines

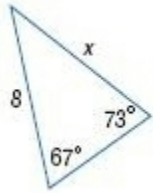
Find  $x$ . Round angle measures to the nearest degree and side measures to the nearest tenth.



12.

ANSWER:

35.1



14.

ANSWER:

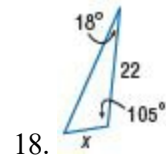
7.7



16.

ANSWER:

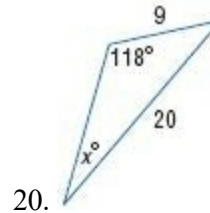
30.0



18.

ANSWER:

8.1

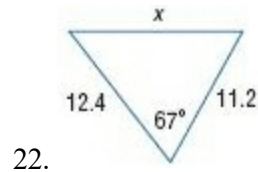


20.

ANSWER:

19.3

Find  $x$ . Round angle measures to the nearest degree and side measures to the nearest tenth.

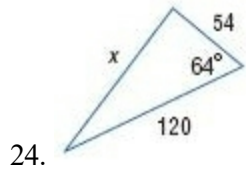


22.

ANSWER:

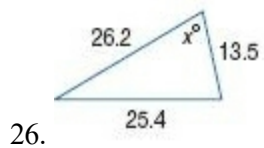
13.1

**8-6 The Law of Sines and Law of Cosines**



ANSWER:

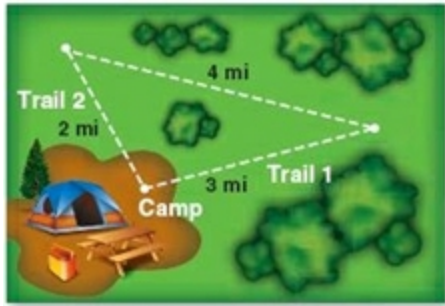
107.9



ANSWER:

72

28. **HIKING** A group of friends who are camping decide to go on a hike. According to the map, what is the angle between Trail 1 and Trail 2?



ANSWER:

104°

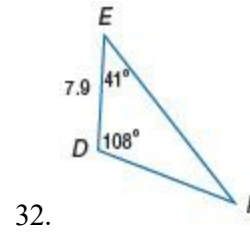
30. **TRAVEL** A pilot flies from Memphis, Tennessee, to Tupelo, Mississippi, to Huntsville, Alabama, and finally back to Memphis. To the nearest mile, how far is Memphis from Huntsville?



ANSWER:

207 mi

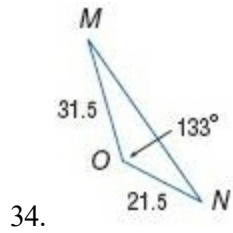
**CCSS STRUCTURE** Solve each triangle. Round angle measures to the nearest degree and side measures to the nearest tenth.



ANSWER:

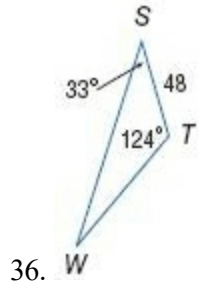
$m\angle F = 31^\circ$ ,  $DF \approx 10.1$ ,  $EF \approx 14.6$

## 8-6 The Law of Sines and Law of Cosines



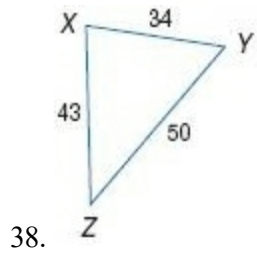
ANSWER:

$$m\angle M \approx 19, m\angle N \approx 28, MN \approx 48.8$$



ANSWER:

$$m\angle W \approx 23, WS \approx 101.8, TW \approx 66.9$$



ANSWER:

$$m\angle X \approx 80, m\angle Y \approx 58, m\angle Z \approx 42$$

40. Solve  $\triangle JKL$  if  $JK = 33$ ,  $KL = 56$ ,  $LJ = 65$ .

ANSWER:

$$m\angle L \approx 31, m\angle K \approx 90, m\angle J \approx 59$$