

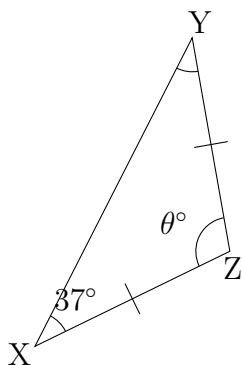
Name: \_\_\_\_\_

Date: \_\_\_\_\_

Angles in a Triangle: Answers

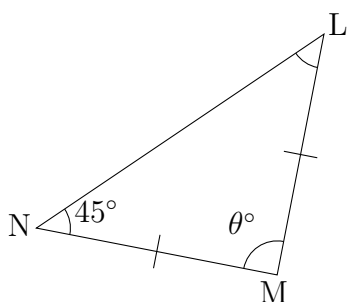
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(1)



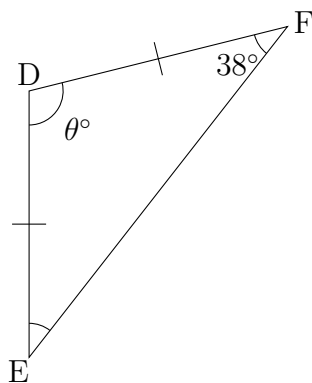
$$\begin{aligned}\angle Z &= 180^\circ - (\angle Y + \angle X) \\ &= 180^\circ - (37^\circ + 37^\circ) \\ &= 180^\circ - 74^\circ \\ &= 106^\circ\end{aligned}$$

(2)



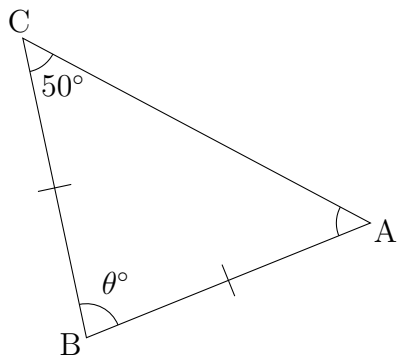
$$\begin{aligned}\angle M &= 180^\circ - (\angle L + \angle N) \\ &= 180^\circ - (45^\circ + 45^\circ) \\ &= 180^\circ - 90^\circ \\ &= 90^\circ\end{aligned}$$

(3)



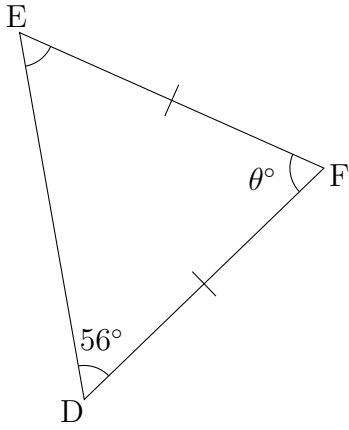
$$\begin{aligned}\angle D &= 180^\circ - (\angle E + \angle F) \\ &= 180^\circ - (38^\circ + 38^\circ) \\ &= 180^\circ - 76^\circ \\ &= 104^\circ\end{aligned}$$

(4)



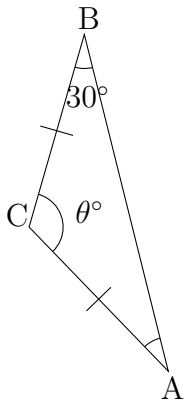
$$\begin{aligned}\angle B &= 180^\circ - (\angle A + \angle C) \\ &= 180^\circ - (50^\circ + 50^\circ) \\ &= 180^\circ - 100^\circ \\ &= 80^\circ\end{aligned}$$

(5)



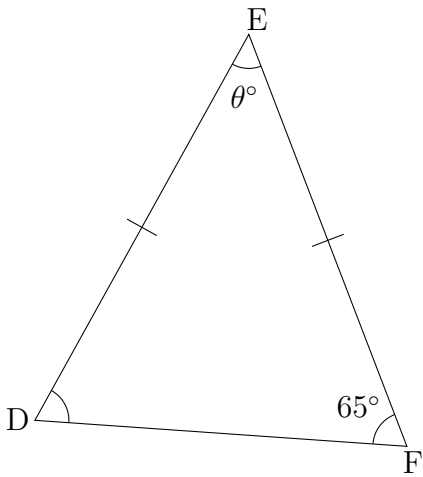
$$\begin{aligned}\angle F &= 180^\circ - (\angle E + \angle D) \\ &= 180^\circ - (56^\circ + 56^\circ) \\ &= 180^\circ - 112^\circ \\ &= 68^\circ\end{aligned}$$

(6)



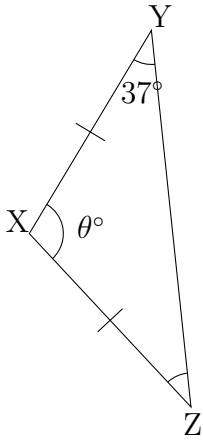
$$\begin{aligned}\angle C &= 180^\circ - (\angle A + \angle B) \\ &= 180^\circ - (30^\circ + 30^\circ) \\ &= 180^\circ - 60^\circ \\ &= 120^\circ\end{aligned}$$

(7)



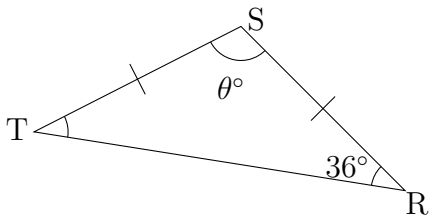
$$\begin{aligned}\angle E &= 180^\circ - (\angle D + \angle F) \\ &= 180^\circ - (65^\circ + 65^\circ) \\ &= 180^\circ - 130^\circ \\ &= 50^\circ\end{aligned}$$

(8)



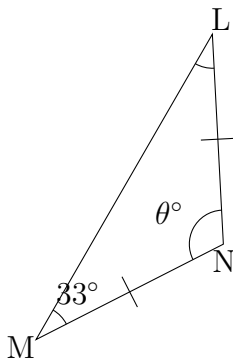
$$\begin{aligned}\angle X &= 180^\circ - (\angle Z + \angle Y) \\ &= 180^\circ - (37^\circ + 37^\circ) \\ &= 180^\circ - 74^\circ \\ &= 106^\circ\end{aligned}$$

(9)



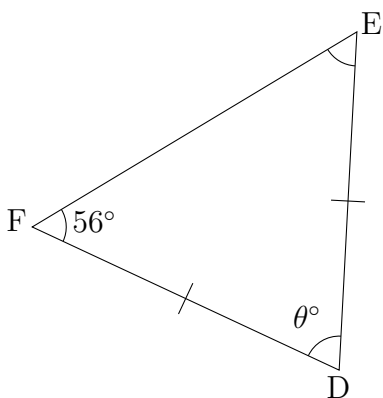
$$\begin{aligned}\angle S &= 180^\circ - (\angle T + \angle R) \\ &= 180^\circ - (36^\circ + 36^\circ) \\ &= 180^\circ - 72^\circ \\ &= 108^\circ\end{aligned}$$

(10)



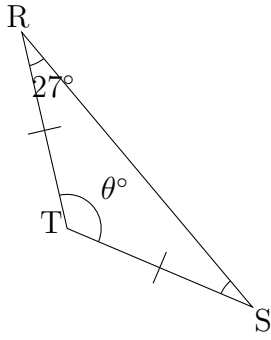
$$\begin{aligned}\angle N &= 180^\circ - (\angle L + \angle M) \\ &= 180^\circ - (33^\circ + 33^\circ) \\ &= 180^\circ - 66^\circ \\ &= 114^\circ\end{aligned}$$

(11)



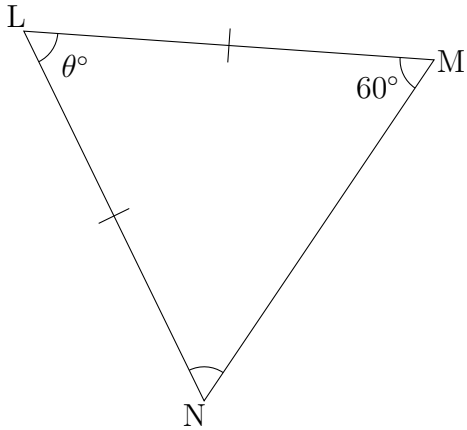
$$\begin{aligned}\angle D &= 180^\circ - (\angle E + \angle F) \\ &= 180^\circ - (56^\circ + 56^\circ) \\ &= 180^\circ - 112^\circ \\ &= 68^\circ\end{aligned}$$

(12)



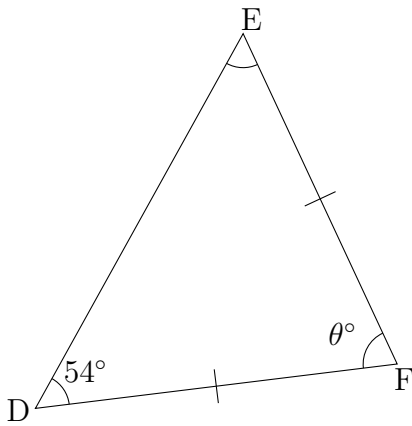
$$\begin{aligned}\angle T &= 180^\circ - (\angle S + \angle R) \\ &= 180^\circ - (27^\circ + 27^\circ) \\ &= 180^\circ - 54^\circ \\ &= 126^\circ\end{aligned}$$

(13)



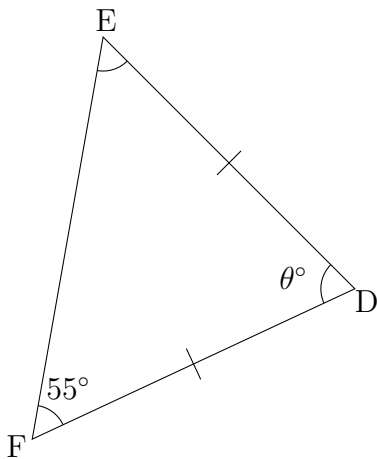
$$\begin{aligned}\angle L &= 180^\circ - (\angle N + \angle M) \\ &= 180^\circ - (60^\circ + 60^\circ) \\ &= 180^\circ - 120^\circ \\ &= 60^\circ\end{aligned}$$

(14)



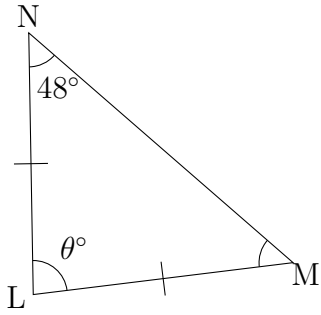
$$\begin{aligned}\angle F &= 180^\circ - (\angle E + \angle D) \\ &= 180^\circ - (54^\circ + 54^\circ) \\ &= 180^\circ - 108^\circ \\ &= 72^\circ\end{aligned}$$

(15)



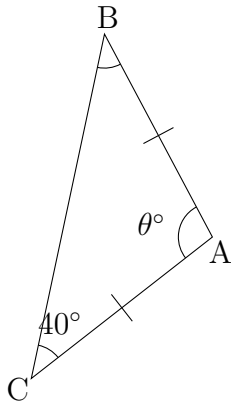
$$\begin{aligned}\angle D &= 180^\circ - (\angle E + \angle F) \\ &= 180^\circ - (55^\circ + 55^\circ) \\ &= 180^\circ - 110^\circ \\ &= 70^\circ\end{aligned}$$

(16)



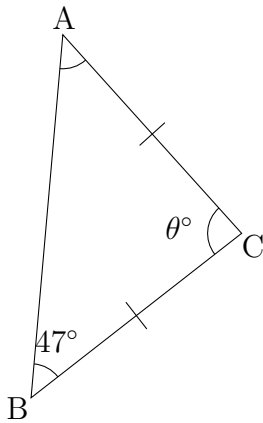
$$\begin{aligned}\angle L &= 180^\circ - (\angle M + \angle N) \\ &= 180^\circ - (48^\circ + 48^\circ) \\ &= 180^\circ - 96^\circ \\ &= 84^\circ\end{aligned}$$

(17)



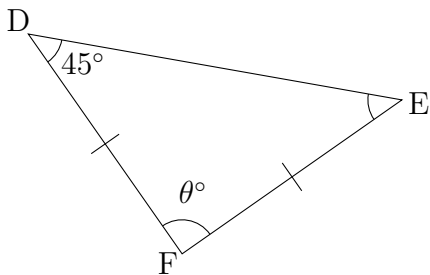
$$\begin{aligned}\angle A &= 180^\circ - (\angle B + \angle C) \\ &= 180^\circ - (40^\circ + 40^\circ) \\ &= 180^\circ - 80^\circ \\ &= 100^\circ\end{aligned}$$

(18)



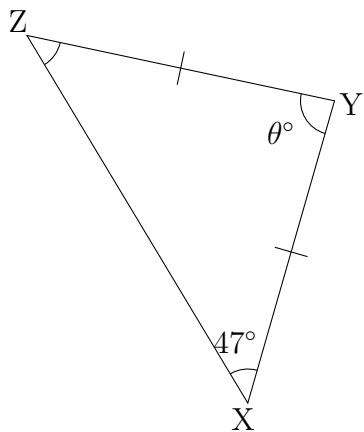
$$\begin{aligned}\angle C &= 180^\circ - (\angle A + \angle B) \\ &= 180^\circ - (47^\circ + 47^\circ) \\ &= 180^\circ - 94^\circ \\ &= 86^\circ\end{aligned}$$

(19)



$$\begin{aligned}\angle F &= 180^\circ - (\angle E + \angle D) \\ &= 180^\circ - (45^\circ + 45^\circ) \\ &= 180^\circ - 90^\circ \\ &= 90^\circ\end{aligned}$$

(20)



$$\begin{aligned}\angle Y &= 180^\circ - (\angle Z + \angle X) \\ &= 180^\circ - (47^\circ + 47^\circ) \\ &= 180^\circ - 94^\circ \\ &= 86^\circ\end{aligned}$$