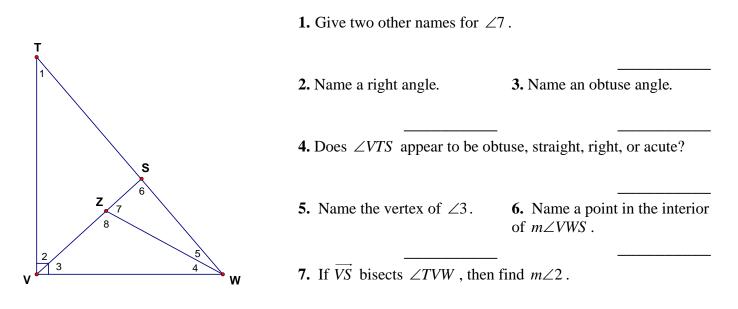


Refer to the figure below and answer the following questions.



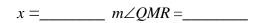
Refer to the figure below and answer the following questions.

8. If $m \angle RMQ = 2x$, $m \angle QML = 3x - 8$, and $m \angle RML = 82$, then find x.

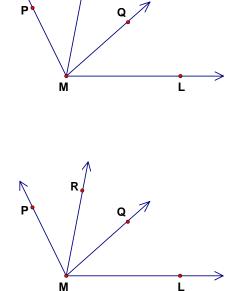
9. If $m \angle PMQ = 79^\circ$, $m \angle QML = 3x + 12$, and $m \angle PML = 125^\circ$, then find x and $m \angle QML$.

$$x = _$$
 $m \angle QML = _$

- 10. If $m \angle RMQ = 3x 23$, $m \angle QML = 4x + 6$, and $m \angle RML = 5x + 8$, then find x and $m \angle RML$.
- $x = \underline{\qquad} m \angle RML = \underline{\qquad}$ **11.** If \overrightarrow{MR} bisects $\angle PMQ$, $m \angle PMR = 2(x-12)$, $m \angle QMR = x+11$, then find x and $m \angle PMR$.









12. *R* is in the interior $\angle QUE$. If $m \angle QUE = 5x + 33$, $m \angle QUR = 14$, and $m \angle RUE = 7x - 10$, then find *x* and the measure of all three angles.

13. \overrightarrow{MN} bisects $\angle EMT$. If $m \angle EMN = 5x - 6$ and $m \angle NMT = x + 16$, then find x and the measure of all three angles.

14. *H* is in the interior of $\angle RTG$. If $m \angle RTH = 3x + 4$, $m \angle RTG = 12x - 15$ and $m \angle HTG = 2x + 2$, then is \overrightarrow{TH} an angle bisector? Explain your answer.

