1.3 Quiz Prep

1) \( m\angle HIG = 36^\circ \) and \( m\angle GII = 140^\circ \).
   Find \( m\angle HIJ \).

2) Find \( m\angle LMW \) if \( m\angle LMN = 166^\circ \)
   and \( m\angle WMN = 132^\circ \).

3) Find \( x \) if \( m\angle IJU = 6x + 6 \),
   \( m\angle UJK = 15x + 7 \), and \( m\angle DK = 118^\circ \).

4) Find \( x \) if \( m\angle STV = 2 + 36x \),
   \( m\angle VIT = 41^\circ \), and \( m\angle STU = 50x + 1 \).

\( \overrightarrow{VP} \) is an angle bisector in each picture.

5) \( m\angle 2 = 3x + 9 \) and \( m\angle TVU = 9x - 6 \).
   Find \( x \).

6) \( m\angle 1 = 2x + 11 \) and \( m\angle 2 = 1 + 3x \).
   Find \( x \).

Points A, B, and C are collinear. Point B is between A and C. Find the length indicated.

7) Find \( AC \) if \( BC = 1 \) and \( AB = 6 \).

8) \( BC = 8 \) and \( AC = 13 \). Find \( AB \).
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9) \[ \frac{2x - 6}{M} = \frac{3x - 6}{N} \]

Find the length indicated.

10) Find ML

11) Find IF

12) Find TU

13) In the given diagram, L is the midpoint of KM. Find the value of x.

14) S is the midpoint of RT. \( RT = 13x + 8 \) and \( RS = 6x + 5 \). Find RS.