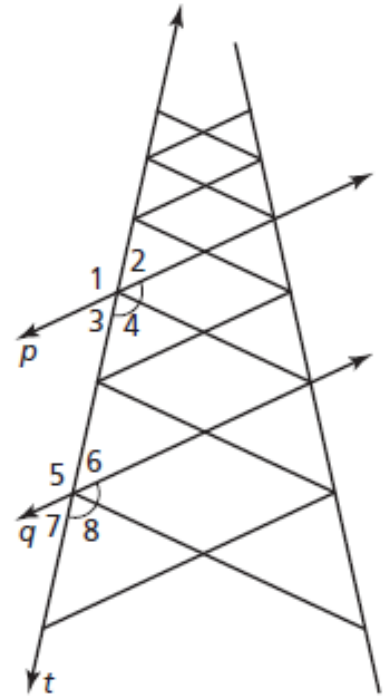


Please complete this worksheet *on your own*. You may use a calculator.

The figure shows part of a lattice tower for a cell site. We know $p \parallel q$.



1. For the angles formed by lines p , q , and t :
 - a. Identify all the pairs of corresponding angles
 \angle _____ and \angle _____, \angle _____ and \angle _____,
 \angle _____ and \angle _____, \angle _____ and \angle _____.
 - b. Identify all the pairs of alternate interior angles
 \angle _____ and \angle _____, \angle _____ and \angle _____.
 - c. Identify all the pairs of alternate exterior angles
 \angle _____ and \angle _____, \angle _____ and \angle _____.
 - d. Identify all the pairs of consecutive same side angles
 \angle _____ and \angle _____, \angle _____ and \angle _____.
2. Identify all the congruent angles formed by lines p , q , and t
 \angle _____ \cong \angle _____ \cong \angle _____ \cong \angle _____ *and*
 \angle _____ \cong \angle _____ \cong \angle _____ \cong \angle _____
3. Find the value of x that makes $p \parallel q$ when $m\angle 2 = 44^\circ$ and $m\angle 5 = 2x^\circ$. Show all your work.
4. Find the value of x that makes $p \parallel q$ when $m\angle 4 = 110^\circ$ and $m\angle 8 = 4x^\circ$. Show all your work.
5. A design specification requires that $3 \cdot m\angle 3 \leq m\angle 1 \leq 150^\circ$. Do either of the situations in numbers (3) and (4) meet this specification? Explain your reasoning in complete sentences.
