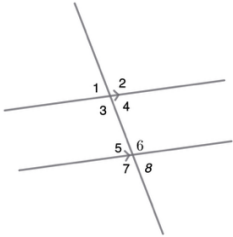
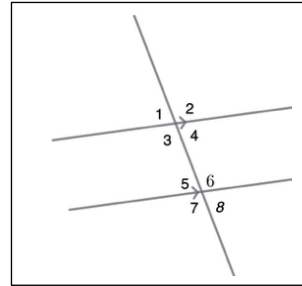


Making Notes | Lesson 2.5 — Transversal Angle Relationships

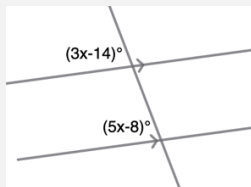


Relationship	Example pair from diagram	Conditional statement (If two parallel lines... then...)	$\cong$ or supp?
Corresponding angles <i>Same position at each intersection.</i>			
Alternate interior angles <i>Between the lines, opposite sides of transversal.</i>			
Alternate exterior angles <i>Outside the lines, opposite sides of transversal.</i>			
Co-interior angles <i>Also: same-side interior. Between the lines, same side.</i>			

The Deductive Argument

Given: $\angle 1 \cong \angle 5$ **Prove:** $\angle 4 \cong \angle 8$ 

Worked Example

**Step 1:** Identify the relationship. $\angle 1$ and $\angle 5$ are corresponding angles.**Step 2:** Write the equation.

$$3x + 14 = 5x - 8$$

Step 3: Solve.

$$14 + 8 = 5x - 3x$$

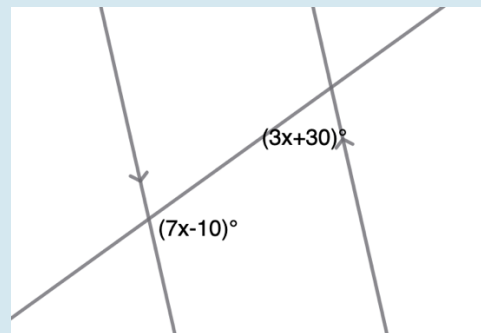
$$22 = 2x$$

$$x = 11$$

Step 4: Find the angle measures.

$$3(11) + 14 = 47^\circ \quad \checkmark \quad 5(11) - 8 = 47^\circ$$

Your turn



Solve for x: