Parallel Lines

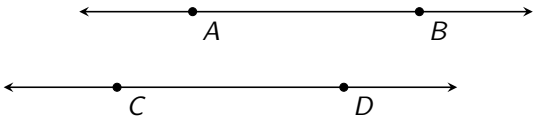
Today I Can

1. Use properties of parallel lines to find angle measures.

Parallel Lines

Two coplanar lines are parallel if they do not intersect.

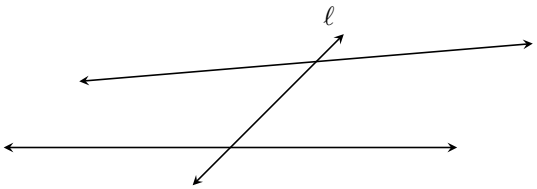
- $\overline{AB} \parallel \overline{CD}$



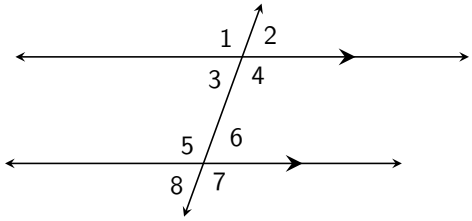
Transversal Line

A line that intersects 2 or more coplanar lines at distinct points.

- ℓ is a transversal line



Parallel Lines and Transversals

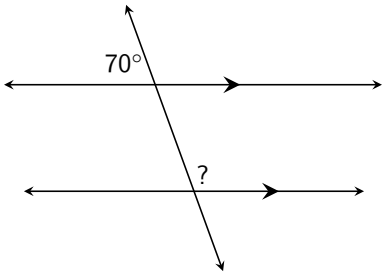


Angle Relationships with Parallel Lines and Transversals

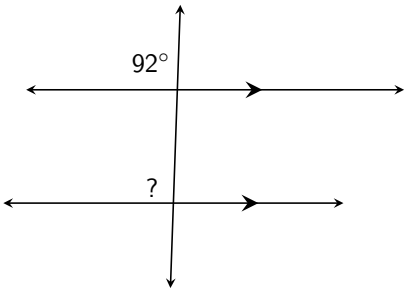
Corresponding	Alternate Interior	Alternate Exterior	Same-Side Interior	Same-Side Exterior
•1 and 5 •2 and 6 •3 and 7 •4 and 8	•3 and 6 •4 and 5	•2 and 7 •1 and 8	•3 and 5 •4 and 6	•1 and 7 •2 and 8

Example 1. Find the measure of each angle given each pair of parallel lines.

(a)

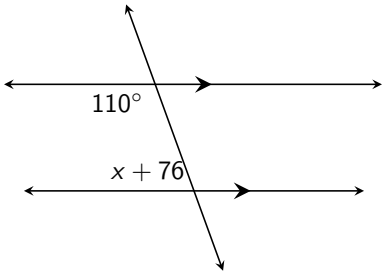


(b)

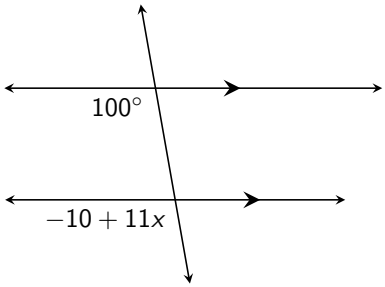


Example 2. Find the value of the variable in each.

(a)

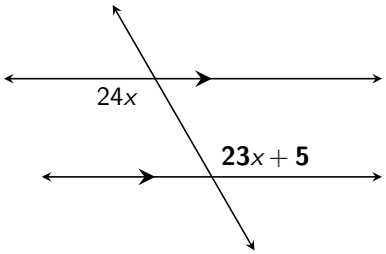


(b)

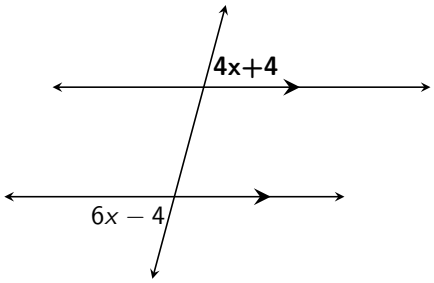


Example 3. Find the measure of the angle in bold.

(a)

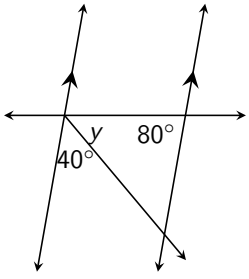


(b)



Example 4. Find the value of the variable in each.

(a)



(b)