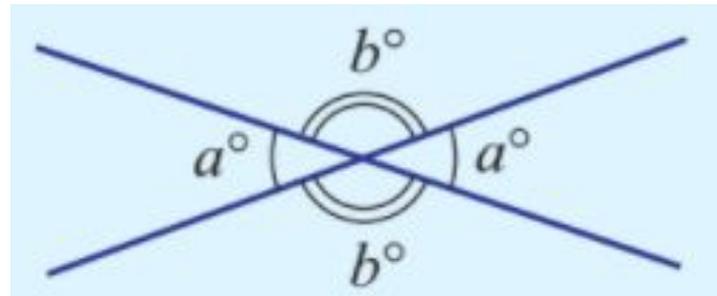


## VERTICALLY OPPOSITE ANGLES

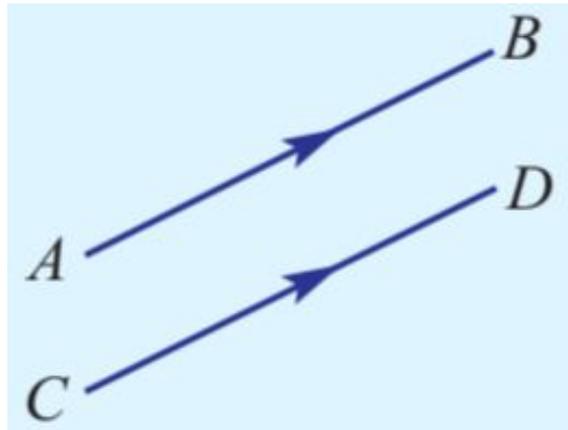
Vertically opposite angles are formed when two lines intersect.



Vertically opposite angles are **equal**.

## PARALLEL LINES

In a plane, **parallel lines** are lines that never cross.

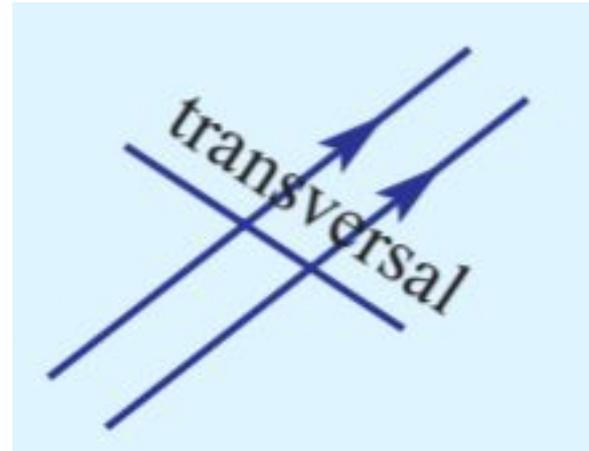
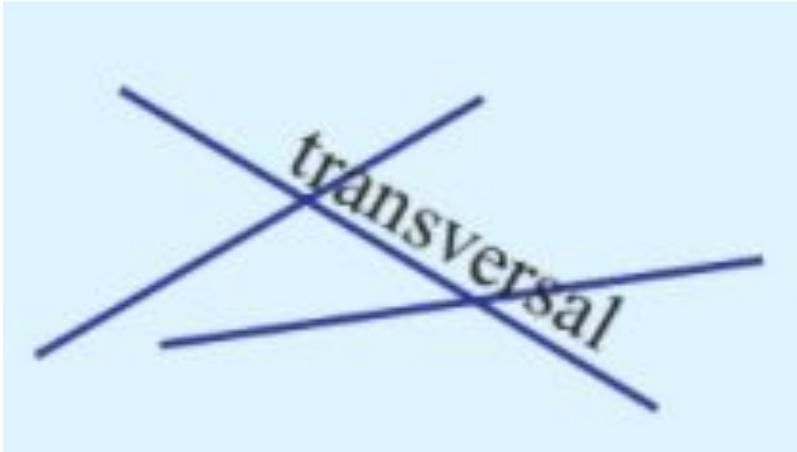


Parallel lines are marked with the same arrow set.

If lines AB and CD are parallel, we write:  $AB \parallel CD$

# TRANSVERSAL LINES

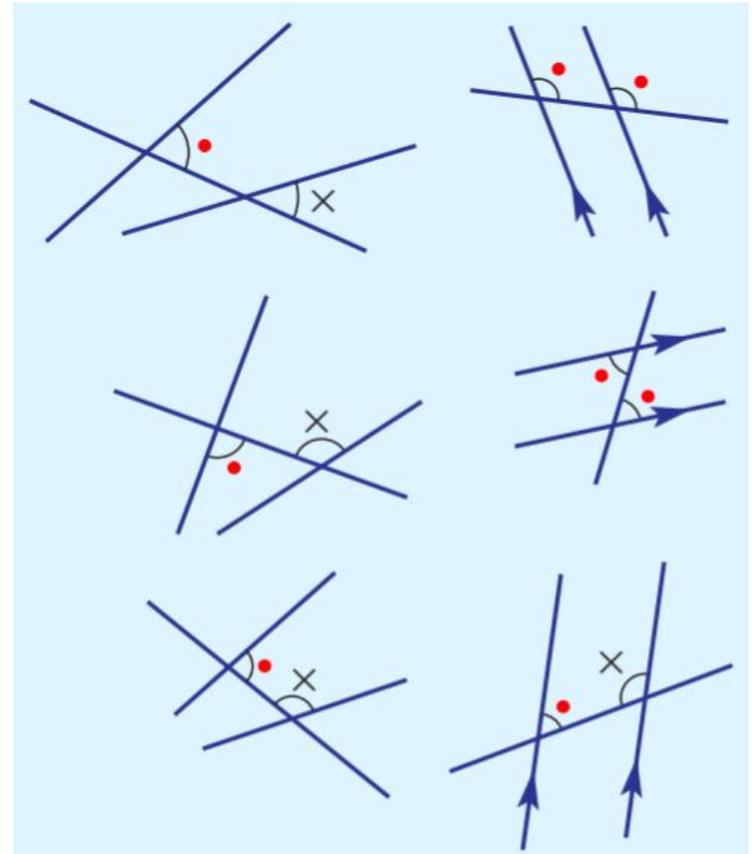
A transversal is a line intersecting two or more other lines.



# TRANSVERSAL LINES

A transversal line crossing two lines will form special pairs of angles:

- **corresponding** angles  
(in corresponding positions)
- **alternate** angles  
(on opposite sides of the transversal)
- **cointerior** angles  
(on the same side of the transversal)



## ANGLES ON PARALLEL LINES

If a transversal line crosses two parallel lines, then:

- **corresponding angles** on parallel lines are **equal**
- **alternate angles** on parallel lines are **equal**
- **co-interior angles** on parallel lines are **supplementary**

