



Rigid motions

Move it without changing it

- Today: three moves that change position and nothing else.

Tracing paper, not a list

- Trace the shape. Slide it, flip it, turn it.
- Check every length and angle after.

The standard says VERIFY. So verify.

Translation: slide

- Every point moves the same way.
- Nothing turns, nothing flips.

Reflection: flip

- Across a mirror line.
- Same distance the other side.

Rotation: turn

- About a fixed point, through an angle.

All three keep **EVERYTHING**

- Same side lengths. Same angles.
- Parallel stays parallel. Straight stays straight.

“Rigid” is the whole point. Only position changes.

Flip or turn? Watch the ORDER

- Label the corners A, B, C.
- Reflection reverses the order. Rotation keeps it.

On a symmetric shape you cannot tell. On a scalene one you can.

Your turn

- Trace a scalene triangle. Reflect it, then rotate it 180° .
- Which one reversed $A \rightarrow B \rightarrow C$?

Measure a side before and after. Both times.