

Move each point in ABCDE 2 spaces up and 4 spaces right.



Translate Polygon ABCDE 2 spaces up and 4 spaces right.



Congruence

What Is Congruence?

- You learned earlier that figures that are translated do not change in size or shape.
- When two figures are exactly the same, they are called congruent.
- Figures that have the same shape and size are congruent.
- This means that their angles are also exactly the same and are also congruent.

Congruence in Translations

- When a figure is translated, the image will be congruent to the pre-image.
- All lines, angles, and segments remain exactly the same, just placed in a new location.

Remote Interior Angles: The two angles inside the triangle that do not share a vertex with the exterior angle.

- There is a special relationship between an exterior angle and the two remote interior angles across from it.
- This relationship is described in the Exterior Angle Theorem.



Matching the number of arcs will tell you which angles match up or correspond to one another.

In the image shown, Angles A and P have the same measure.



You can tell because they both have one arc marked.

Angles B and Q have the same measure since they have two arcs marked.

- Angles that have the same measure in similar triangles are called congruent angles.
- It does not matter if one of the similar triangles has been rotated. If the angles are corresponding, they can be in different positions but still have the same measure.