Constructing Triangles with Conditions

Today's Standard

7.G.A2 - Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.

Real-World Applications for this Standard

Designing architectural blueprints; Creating computer graphics; Engineering mechanical parts; Solving real-world problems involving land measurement and mapping

Today I Learned

Today, we learned how to draw triangles with given angles or sides using rulers and protractors. We found out that sometimes these conditions can make one triangle, more than one triangle, or no triangle at all.

Common Stumbling Blocks

Some kids think that any three angles or sides will always make a triangle, but that's not true. Others think that triangles with the same measures are always the same, but they can look different.

Quiz Me

- Can you draw a triangle with these angles?
- What tools do we use to draw triangles?
- How many triangles can we make with these sides?
- Can all sets of three sides make a triangle?
- What happens if the angles don't add up right?

Help Me

We can use what we learned about triangles to design things like buildings and bridges. Knowing how to draw triangles helps us understand how shapes fit together in the real world.