

Lesson 5.1 CPCTC



Benchmark(s):

9.3.3.6 Know and apply properties of congruent and similar figures to solve problems and logically justify results.

9.3.2.1 Understand the roles of axioms, definitions, undefined terms and theorems in logical arguments.

9.3.2.4 Construct logical arguments and write proofs of theorems and other results in geometry, including proofs by contradiction. Express proofs in a form that clearly justifies the reasoning, such as two-column proofs, paragraph proofs, flow charts or illustrations.

Essential Question(s):

When two objects are congruent, what is true about them?

Learning Target(s):

I can use logical reasoning, definitions, postulates and theorems to support conclusions.

I can create a valid proof using figures, definitions, postulates and theorems.

I can apply CPCTC to make conclusions from congruent figures.

Vocabulary/Theorems:

CPCTC--Corresponding Parts of Congruent Triangles are Congruent

So you found Mr. Right...now what?

Once you know two figures are congruent, the floodgate of possibility opens. Congruency implies a variety of facts that follow. Remember, when we first described congruency, we discussed how the shapes in question are EXACTLY the same--same shape, same size, same corresponding pieces. We've learned throughout this unit about our triangle shortcuts that we can use to prove two triangles congruent, an incredibly helpful set of knowledge. Now it goes full circle--once we prove two triangles are congruent with one of our shortcuts, then we can say every other corresponding part of the shape is congruent as well. Handy, right?

Activity: Watch a video introduction to CPCTC.