

Converses of conditionals

In this lesson we'll look at how to write a converse statement from a conditional.

Conditionals and their converses

We learned in the last section that a conditional statement is an if/then statement where the first part is the hypothesis and the second part is the conclusion. They're written like this:

"If A , then B ."

The **converse of a conditional statement** switches what goes with the "if" and what goes with the "then." So instead of "If A , then B ," the converse says

"If B , then A ."

Notice that the converse of a conditional statement is itself a conditional statement.

Let's look at an example.

Example

Write the converse of the statement.

"If it snows, then they cancel school."



The converse of a conditional statement switches what goes with the “if” and what goes with the “then.” So we switch the places of “canceling school” and “snow.”

Conditional: **“If it snows, then they cancel school.”**

Converse: **“If they cancel school, then it snows.”**

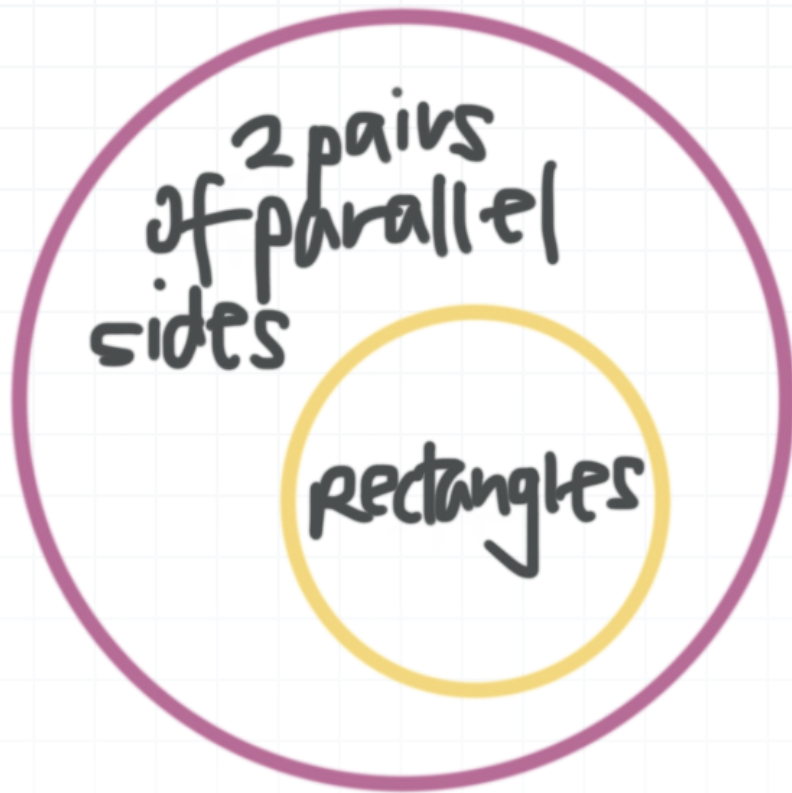
Notice that the conditional statement makes sense and could possibly be true. But its converse doesn’t really make sense, because cancelling school doesn’t necessarily mean it will snow.

Let’s look at another example.

Example

What is the conditional statement represented in the Euler diagram? What is its converse?





This diagram is of the form:

"If A , then B ."



This means the conditional statement is:



“If it’s a rectangle, then it has two pairs of parallel sides.”

For the converse, we switch what goes with the if and what goes with the then.

Conditional: **“If it’s a rectangle, then it has two pairs of parallel sides.”**

Converse: **“If it has two pairs of parallel sides, then it’s a rectangle.”**

Notice that the converse is not always true. A shape that has two pairs of parallel sides could be any parallelogram, not necessarily a rectangle.

