



CORRESPONDING PARTS OF CONGRUENT FIGURES

Corresponding Parts of Congruent Figures

8 boxes · read the order of the letters · no preparation

FREE

1

$$\triangle STU \cong \triangle HGJ$$

Which one says the same thing, with $\triangle HGJ$ first?

$$\triangle HGJ \cong \triangle STU \rightarrow \text{you are out}$$

$$\triangle HGJ \cong \triangle UTS \rightarrow \text{go to box 3}$$

Hint: List the three pairs of the statement. Look for all three in each choice.

2

$$\triangle MNP \cong \triangle YXZ$$

Which angle is the partner of $\angle N$?

$$\angle Y \rightarrow \text{go to box 6}$$

$$\angle X \rightarrow \text{go to box 5}$$

Hint: Find the place of N in its name. Look at the same place in the other name.

3

$$\triangle JKM \cong \triangle XZY$$

Which is another correct way to write it?

$$\triangle MKJ \cong \triangle XZY \rightarrow \text{go to box 7}$$

$$\triangle MKJ \cong \triangle YZX \rightarrow \text{go to box 2}$$

Hint: Look at both names in each choice. Check the columns of letters.

4

$$\triangle ABC \cong \triangle EFD$$

Which side is the partner of BC?

$$EF \rightarrow \text{go to box 6}$$

$$FD \rightarrow \text{go to box 7}$$

Hint: Look at the places of B and C in the first name. Then look at the same places in the second name.

5

$$\triangle DEF \cong \triangle QPR$$

Which one says the same thing, with $\triangle QPR$ first?

$$\triangle QPR \cong \triangle DEF \rightarrow \text{go to box 8}$$

$$\triangle RPQ \cong \triangle DEF \rightarrow \text{go to box 3}$$

Hint: Check which letter stands above D, above E and above F in each choice.

6

$$\triangle RST \cong \triangle BCA$$

Which side is the partner of RT?

$$BA \rightarrow \text{go to box 7}$$

$$AC \rightarrow \text{go to box 4}$$

Hint: Count the places in each name. The first letter goes with the first letter, and so on.

Maze — how to run it

10–15 minutes

1. **Give each student page 3.** No preparation.
2. **Say this once:** “Start at box 4. Pick an answer and go where it says. Write every box number in the row at the bottom.”
3. **Check the row of numbers.** A clean run is 4, 7, 2, 5, 8, 1, then out. Nothing else is needed.

Maze page 3, one per student.
Answers page 4 — yours.

No drawings. Every box is a congruence statement and one question about it. On the route, two boxes ask for a partner part. Four ask which way of writing the statement says the same thing. Many students believe there is only one correct way to write a congruence statement. There are several.

Every wrong answer comes from one of two mistakes. In a partner box, the student puts both names in alphabetical order and pairs the letters that way. In a writing box, the student reorders one name and not the other. Each mistake sends the student to a box off the route with the same kind of question. Both answers there lead back to the route.

A long row of numbers means a student went off the route. Ask: “Write the two names one above the other. Do the columns stay the same?”

Guessing does not get a student out. Every simple guessing rule, such as always taking the first answer, goes wrong within the first two boxes.



This is the free lesson this activity came from. The worksheet, the full answers and the lesson plan are on it.

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Maze — which letters go together?

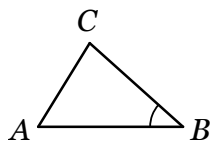
Corresponding parts

Name _____

Period _____

Date _____

Start at box 4. Read the statement and the question. Pick one answer and go to the box it names. Write each box number in the row at the bottom as you go. If a box sends you back, do that box again.



The stack test. Write the two names one above the other.

$\triangle$	A	B	C
$\triangle$	D	E	F

Letters in the same column are partners. A goes with D. AB goes with DE.

An angle has its corner in the middle: $\angle ABC$ is the angle at B. It goes with $\angle DEF$.

1

$\triangle STU \cong \triangle HGJ$

Which one says the same thing, with $\triangle HGJ$ first?

$\triangle HGJ \cong \triangle STU \rightarrow$ **you are out**

$\triangle HGJ \cong \triangle UTS \rightarrow$ **go to box 3**

Hint: List the three pairs of the statement. Look for all three in each choice.

2

$\triangle MNP \cong \triangle YXZ$

Which angle is the partner of $\angle N$?

$\angle Y \rightarrow$ **go to box 6**

$\angle X \rightarrow$ **go to box 5**

Hint: Find the place of N in its name. Look at the same place in the other name.

3

$\triangle JKM \cong \triangle XZY$

Which is another correct way to write it?

$\triangle MKJ \cong \triangle XZY \rightarrow$ **go to box 7**

$\triangle MKJ \cong \triangle YZX \rightarrow$ **go to box 2**

Hint: Look at both names in each choice. Check the columns of letters.

4

$\triangle ABC \cong \triangle EFD$

Which side is the partner of BC?

EF $\rightarrow$ **go to box 6**

FD $\rightarrow$ **go to box 7**

Hint: Look at the places of B and C in the first name. Then look at the same places in the second name.

5

$\triangle DEF \cong \triangle QPR$

Which one says the same thing, with $\triangle QPR$ first?

$\triangle QPR \cong \triangle DEF \rightarrow$ **go to box 8**

$\triangle RPQ \cong \triangle DEF \rightarrow$ **go to box 3**

Hint: Check which letter stands above D, above E and above F in each choice.

6

$\triangle RST \cong \triangle BCA$

Which side is the partner of RT?

BA $\rightarrow$ **go to box 7**

AC $\rightarrow$ **go to box 4**

Hint: Count the places in each name. The first letter goes with the first letter, and so on.

7

$\triangle JKL \cong \triangle RTS$

Which is another correct way to write it?

$\triangle KLJ \cong \triangle TSR \rightarrow$ **go to box 2**

$\triangle KLJ \cong \triangle RTS \rightarrow$ **go to box 3**

Hint: Write each choice as two names, one above the other. Compare its columns with the columns of the statement.

8

$\triangle GHK \cong \triangle UST$

Which is another correct way to write it?

$\triangle KHG \cong \triangle UST \rightarrow$ **go to box 3**

$\triangle KHG \cong \triangle TSU \rightarrow$ **go to box 1**

Hint: Compare the columns of each choice with the columns of the statement.

Write every box number here, in order.

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Maze — answers

For the teacher

The route, in order. Boxes 6 and 3 are not on it. A student reaches them only by a wrong answer. They are the last two rows of the table.

4 → 7 → 2 → 5 → 8 → 1 → out

Box	Statement and question	Right answer, and why	Wrong answer, and why a student picks it
4	$\triangle ABC \cong \triangle EFD$ Which side is the partner of BC?	FD , go to box 7. The statement pairs B with F and C with D, so BC goes with FD.	EF, go to box 6. A student who puts both names in alphabetical order picks this.
7	$\triangle JKL \cong \triangle RTS$ Which is another correct way to write it?	$\triangle K LJ \cong \triangle TS R$, go to box 2. Both names are reordered in the same way, so J still goes with R, K with T and L with S.	$\triangle KLJ \cong \triangle RTS$, go to box 3. A student who reorders one name and not the other picks this.
2	$\triangle MNP \cong \triangle YXZ$ Which angle is the partner of $\angle N$?	$\angle X$, go to box 5. N is the second letter of MNP, and X is the second letter of YXZ.	$\angle Y$, go to box 6. A student who puts both names in alphabetical order picks this.
5	$\triangle DEF \cong \triangle QPR$ Which one says the same thing, with $\triangle QPR$ first?	$\triangle QPR \cong \triangle DEF$, go to box 8. Swapping the two whole names keeps every pair: Q with D, P with E and R with F.	$\triangle RPQ \cong \triangle DEF$, go to box 3. A student who reorders one name and not the other picks this.
8	$\triangle GHK \cong \triangle UST$ Which is another correct way to write it?	$\triangle KHG \cong \triangle TSU$, go to box 1. Both names are written backward, so G still goes with U, H with S and K with T.	$\triangle KHG \cong \triangle UST$, go to box 3. A student who reorders one name and not the other picks this.
1	$\triangle STU \cong \triangle HGJ$ Which one says the same thing, with $\triangle HGJ$ first?	$\triangle HGJ \cong \triangle STU$, you are out. Swapping the two whole names keeps every pair: H with S, G with T and J with U.	$\triangle HGJ \cong \triangle UTS$, go to box 3. A student who reorders one name and not the other picks this.
6	$\triangle RST \cong \triangle BCA$ Which side is the partner of RT?	BA , go to box 7. The statement pairs R with B and T with A, so RT goes with BA.	AC, go to box 4. A student who puts both names in alphabetical order picks this.
3	$\triangle JKM \cong \triangle XZY$ Which is another correct way to write it?	$\triangle MKJ \cong \triangle YZX$, go to box 2. Both names are written backward, so J still goes with X, K with Z and M with Y.	$\triangle MKJ \cong \triangle XZY$, go to box 7. A student who reorders one name and not the other picks this.

A student can find the last four boxes of the route by following the arrows backward from “you are out.” So ask a student with a clean row to explain one box.