LESSON MAKER PRO

Match the Vertices

Write similarity statements in matching order.

GRADE 7 · 7.MG.2.c

7.MG.2.c "Given two similar quadrilaterals or triangles, write similarity statements using symbols."

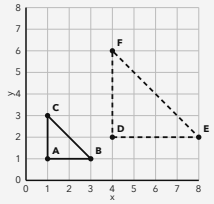
NAME _____ DATE _____

KEEP THE ORDER

Similar figures have matching angles and proportional side lengths. Match each vertex to its partner, then list the vertices in the same order on both figures. The symbol for "is similar to" is ~.

WORKED EXAMPLE

Use the grid. Write a similarity statement for the two triangles.



1. Match the right-angle vertices: A matches D.
2. Follow the horizontal sides: B matches E.
3. The remaining vertices match: C matches F.
4. Write both triangles in matching order.

Answer: ΔABC ~ ΔDEF

PRACTICE 4 problems

1 In ΔJKL and ΔMNP, J matches N, K matches P, and L matches M. Write a similarity statement.

ANSWER _____

2 Quadrilateral ABCD is similar to quadrilateral WXYZ. A matches Y, B matches Z, C matches W, and D matches X. Write a similarity statement.

ANSWER _____

3 Triangle UVW is similar to triangle GHI. U matches H, V matches G, and W matches I. Write a similarity statement.

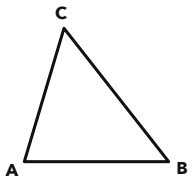
ANSWER _____

4 QRST ~ EFGH. Write an equivalent similarity statement that begins with S.

ANSWER _____

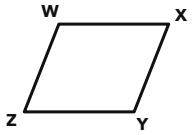
APPLY IT Show your work

1 An esports team uses the shown logo ABC. Its banner copy is triangle DEF. A matches D, B matches E, and C matches F. Write a similarity statement.



ANSWER _____

2 The shown mural panel WXYZ is copied as panel JKLM. W matches J, X matches K, Y matches L, and Z matches M. Write a similarity statement.



ANSWER _____

CHALLENGE One step up

Both statements describe the same similar triangles: ΔABC ~ ΔXYZ and ΔBCA ~ ΔYZX. Are both statements correct? Explain.

WORK SPACE AND ANSWER

ANSWER KEY

Match the Vertices

GRADE 7 · 7.MG.2.c

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	In ΔJKL and ΔMNP, J matches N, K matches P, and L matches M. Write a similarity statement.	**ΔJKL ~ ΔNPM**
2	Quadrilateral ABCD is similar to quadrilateral WXYZ. A matches Y, B matches Z, C matches W, and D matches X. Write a similarity statement.	**ABCD ~ YZWX**
3	Triangle UVW is similar to triangle GHI. U matches H, V matches G, and W matches I. Write a similarity statement.	**ΔUVW ~ ΔHGI**
4	QRST ~ EFGH. Write an equivalent similarity statement that begins with S.	**STQR ~ GHEF**

PART 2 · APPLY IT

1. **ΔABC ~ ΔDEF** List A, B, and C. Then list their matching banner vertices D, E, and F in the same order.
2. **WXYZ ~ JKLM** Start with WXYZ from the shown panel. Use J, K, L, and M as the matching vertices in order.

CHALLENGE

Yes. In both statements, A matches X, B matches Y, and C matches Z. The vertices are listed in matching order.

Accept any equivalent cyclic order that keeps corresponding vertices aligned. Reversing the order is also acceptable only if both figures are reversed together.