

Mark It Right

Read triangle markings like a geometry code.

GRADE 5 • 5.MG.3.c

5.MG.3.c "Identify congruent sides and right angles using geometric markings to denote properties of triangles."

NAME _____

DATE _____

READ THE MARKS

Matching tick marks on sides show that the sides are congruent, or the same length. A small square at a corner shows a right angle. Different tick styles show different groups of congruent sides.

WORKED EXAMPLE

In triangle RST, sides RS and RT each have double matching tick marks. Which sides are congruent?

1. Look for sides with matching marks.
2. RS and RT have the same double tick marks.
3. Matching tick marks show equal side lengths.

Answer: RS and RT are congruent.

PRACTICE 6 problems

- 1** Triangle ABC has a single tick mark on AB and AC. A small square is at angle A. Name the congruent sides and the right angle.

ANSWER _____

- 2** Triangle DEF has triple matching tick marks on DE and DF. Side EF has a single tick mark. Which sides are congruent?

ANSWER _____

- 3** Triangle GHI has a small square at angle H. Sides GH, HI, and GI have different tick styles. Name the right angle. Are any congruent sides marked?

ANSWER _____

- 4** Triangle JKL has a single matching tick mark on each side. Which sides are congruent?

ANSWER _____

- 5** Triangle MNP has a small square at angle P and no tick marks on its sides. Which angle is marked as a right angle? Are any congruent sides shown?

ANSWER _____

- 6** Triangle QRS has triple matching tick marks on QR and RS. A small square is at angle R. Name the congruent sides and the right angle.

ANSWER _____

APPLY IT Show your work

- 1** A game designer makes a triangular level badge. The badge has matching single tick marks on sides UV and UW. The corner at U has a small square. Which sides are congruent, and which angle is a right angle?

WORK SPACE

ANSWER _____

- 2** At art club, a triangular mosaic tile has matching triple tick marks on side XY and side YZ. No small square appears on the tile. Which sides are shown congruent? Is any right angle shown?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Triangle ABC has matching single tick marks on AB and AC, with a small square at angle A. Triangle DEF has matching triple tick marks on DE and DF, with a small square at angle D. Maya says AB is congruent to DE because both triangles have a right angle. Is Maya correct? Explain.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Triangle ABC has a single tick mark on AB and AC. A small square is at angle A. Name the congruent sides and the right angle.	AB and AC are congruent. Angle A is a right angle.
2	Triangle DEF has triple matching tick marks on DE and DF. Side EF has a single tick mark. Which sides are congruent?	DE and DF are congruent.
3	Triangle GHI has a small square at angle H. Sides GH, HI, and GI have different tick styles. Name the right angle. Are any congruent sides marked?	Angle H is a right angle. No congruent sides are marked.
4	Triangle JKL has a single matching tick mark on each side. Which sides are congruent?	JK, KL, and JL are congruent.
5	Triangle MNP has a small square at angle P and no tick marks on its sides. Which angle is marked as a right angle? Are any congruent sides shown?	Angle P is a right angle. No congruent sides are shown.
6	Triangle QRS has triple matching tick marks on QR and RS. A small square is at angle R. Name the congruent sides and the right angle.	QR and RS are congruent. Angle R is a right angle.

PART 2 • APPLY IT

- UV and UW are congruent. Angle U is a right angle.** The matching single tick marks identify UV and UW as congruent. The small square identifies angle U as a right angle.
- XY and YZ are congruent. No right angle is marked.** The matching triple tick marks show that XY and YZ have equal length. Without a small square, no right angle is marked.

CHALLENGE

No. AB and DE have different tick styles, so they are not shown as congruent. The small squares describe right angles, not side lengths.

Accept correct side names in either order. Accept "right angle at A" or equivalent wording for a marked right angle.