Classifying Two-Dimensional Figures

Classifying Two-Dimensional Figures: Models and Computation

Name _____ **Date** _____ **Score** _____ / 6

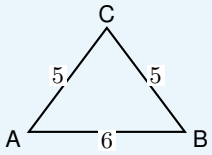
QUICK REVIEW

Classify a closed figure with straight sides first by its side count. Then use equal lengths, right-angle squares, and matching arrows on parallel sides. All right angles are marked in the shape diagrams. One figure can belong to more than one group.

Worked example

Use the marked lengths to classify ABC by its sides.

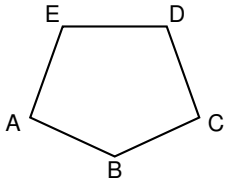
1. AC and BC are each labeled 5, giving an equal pair.
2. AB is 6, and $6 \neq 5$. Exactly 2 sides are equal, so the triangle is isosceles but not equilateral.
Answer: Isosceles, not equilateral.



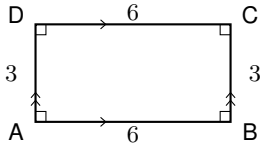
Practice Problems

Show your thinking.

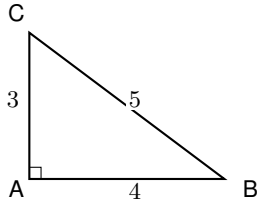
1. Name the pictured polygon by its side count. List its sides to show how you know.



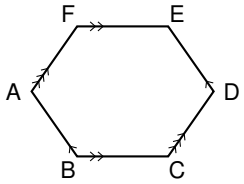
2. Which names apply to $ABCD$: quadrilateral, parallelogram, rectangle, rhombus, square? List every one that applies.



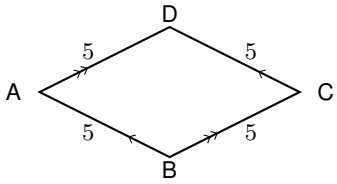
3. Classify the marked 3-4-5 triangle by side lengths and by angle type. Give evidence for both names.



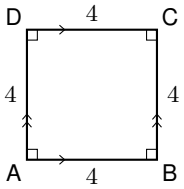
4. A student calls the figure a quadrilateral after counting only its slanted sides. Count all the sides and give its correct name.



5. Does the pictured $ABCD$ belong to the rectangle group? Use the right-angle requirement, not just the number of sides.



6. What is the most specific standard name for the pictured $ABCD$? Use its lengths and corner marks together.



Answer Key

1. Pentagon.
2. Quadrilateral, parallelogram, and rectangle.
3. Right scalene triangle.
4. Hexagon: 4 slanted sides and 2 horizontal sides.
5. No. It has 4 sides but no right angles.
6. Square.

Step-by-Step Solutions

Follow each calculation, then check your own work.

Problem 1

1. Trace AB, BC, CD, DE, EA: all 5 edges are straight, and the last edge closes the figure.

2. A closed polygon with 5 sides is a pentagon.

Problem 2

1. Its 4 sides make it a quadrilateral. The arrows show $AB \parallel CD$ and $BC \parallel AD$. Those 2 pairs make it a parallelogram.

2. Its 4 square corners make it a rectangle. Adjacent sides are 6 and 3 units, so it is neither a rhombus nor a square.

Problem 3

1. The side labels are $AC = 3$, $AB = 4$, and $BC = 5$. Since $3 < 4 < 5$, no two sides are equal: scalene.

2. The square at A marks a 90° angle between AB and AC, so the triangle is right.

Problem 4

1. The slanted sides are AB, CD, DE, FA, for a count of 4.

2. Include the 2 horizontal sides BC and EF. All $4 + 2 = 6$ sides make a hexagon.

Problem 5

1. The figure has 4 straight sides, so it meets the side-count requirement.

2. None of the 4 corners has a square mark. A rectangle needs 4 right angles, not 0.

Problem 6

1. Each side is labeled 4, so the figure has 4 equal sides.

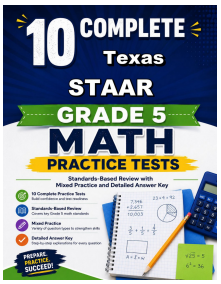
2. All 4 corners have right-angle marks. Both conditions together make a square.

TESTINAR

Keep Building Grade 5 Math Skills

Choose the practice book matched to your state assessment and turn worksheet practice into a complete test-prep plan.

All Grade 5 books



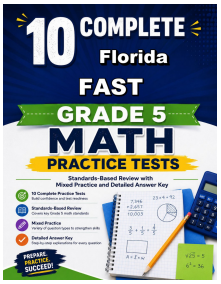
TEXAS STAAR

10 Full-Length Math Practice Tests

Build Grade 5 accuracy, confidence, and test stamina with 10 printable practice tests.

Printable eBook • Instant PDF access

View eBook



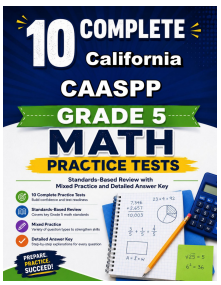
FLORIDA FAST

10 Full-Length Math Practice Tests

Build Grade 5 accuracy, confidence, and test stamina with 10 printable practice tests.

Printable eBook • Instant PDF access

View eBook



CALIFORNIA CAASPP

10 Full-Length Math Practice Tests

Build Grade 5 accuracy, confidence, and test stamina with 10 printable practice tests.

Printable eBook • Instant PDF access

View eBook

Need a different state?
Testinar has Grade 5 math practice books for state assessments across the country.

TESTINAR.COM/GRADES/5