

Triangles and Polygon Foundations

Classifying triangles and polygons, perimeter basics, and the earliest missing-angle ideas.

Name _____ Date _____

32 main 2-up grid 2 pages

Completion Reward



Shown here as a small pack artifact, not a preview destination.

1. How many sides does every triangle have?

- A. 4
- B. 5
- C. 3
- D. 6

2. A triangle with two equal sides is called what?

- A. A scalene triangle
- B. A right triangle
- C. An isosceles triangle
- D. A pentagon

3. A triangle with three equal sides is called what?

- A. An isosceles triangle
- B. A right triangle
- C. A scalene triangle
- D. An equilateral triangle

4. A triangle with no equal sides is called what?

- A. An equilateral triangle
- B. An isosceles triangle
- C. A right triangle
- D. A scalene triangle

5. What is a 5-sided polygon called?

- A. A hexagon
- B. A pentagon
- C. A triangle
- D. An octagon

6. What is any 4-sided polygon called?

- A. A triangle
- B. A pentagon
- C. A quadrilateral
- D. A circle

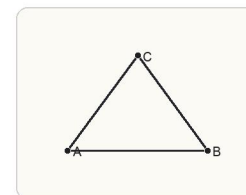
7. What makes a polygon regular?

- A. It has at least one right angle
- B. All sides and all angles are equal
- C. It has an odd number of sides
- D. It is drawn on a grid

8. What is always true about an equilateral triangle?

- A. All three sides are equal
- B. Exactly two sides are equal
- C. It has one right angle
- D. It has four sides

9. What is always true about an isosceles triangle?



An isosceles triangle is defined by having two congruent sides, which also creates equal base angles.

- A. At least two sides are equal
- B. All three sides are different
- C. It must have a right angle
- D. It has four sides

10. What is true about a scalene triangle?

- A. No sides are equal
- B. All sides are equal
- C. It has one right angle
- D. It has five sides

11. What is true about a right triangle?

- A. It has all equal sides
- B. It has four angles
- C. It must be isosceles
- D. It has one 90-degree angle

12. How many sides does a quadrilateral have?

- A. 3
- B. 4
- C. 5
- D. 6

13. How many sides does a hexagon have?

- A. 5
- B. 6
- C. 7
- D. 8

14. What is true about a regular polygon?

- A. Its sides and angles are all equal
- B. It always has 4 sides
- C. Its sides are all different
- D. It has no angles

15. What is true about an obtuse triangle?

- A. It has all equal angles
- B. It has one angle equal to 90 degrees
- C. It has one angle greater than 90 degrees
- D. It has four sides

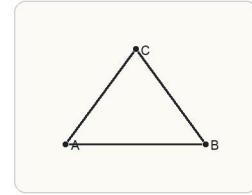
16. How many sides does a pentagon have?

- A. 4
- B. 5
- C. 6
- D. 8

17. How many sides does an octagon have?

- A. 7
- B. 6
- C. 9
- D. 8

18. What kind of polygon is shown in the diagram?



Count the sides of the figure to determine the polygon name.

- A. A triangle
- B. A quadrilateral
- C. A pentagon
- D. A hexagon

19. How would you classify a triangle with side lengths 3, 3, and 5?

- A. Equilateral
- B. Isosceles
- C. Scalene
- D. Right

20. How would you classify a triangle with angles 100 degrees, 40 degrees, and 40 degrees?

- A. Acute
- B. Right
- C. Equilateral
- D. Obtuse

21. What is the best next step to find the third angle of a triangle when two angles are already known?

- A. Add the two known angles and divide by 2
- B. Subtract the two known angles from 180 degrees
- C. Multiply the two known angles
- D. Subtract 90 degrees from each angle

22. A student says the angles of a triangle always add to 90 degrees. What is the mistake?

- A. Triangle angles add to 360 degrees
- B. Only right triangles add to 90 degrees
- C. Triangle angles add to 180 degrees, not 90 degrees
- D. Triangles do not have angle sums

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24. A student says an equilateral triangle cannot also be isosceles. What is wrong?

- A. Equilateral triangles are not triangles
- B. Isosceles triangles must have three unequal sides
- C. An equilateral triangle has at least two equal sides, so it also fits the isosceles definition
- D. Equilateral triangles always have four sides

25. A triangle has side lengths 4, 5, and 6. Find its perimeter. Answer with a number.

26. A regular pentagon has side length 6. Find its perimeter. Answer with a number.

27. Two angles of a triangle measure 50 degrees and 60 degrees. Find the third angle. Answer with a number.

28. Two angles of a triangle measure 50 degrees and 60 degrees. Find the third angle. Answer with a number.

29. An isosceles triangle has one base angle measuring 40 degrees. What is the other base angle? Answer with a number.

30. An isosceles triangle has two equal base angles. If one base angle is 40 degrees, what is the other base angle? Answer with a number.

31. A triangle has side lengths 4, 5, and 6. What is its perimeter? Answer with a number.

32. A quadrilateral has angles measuring 90 degrees, 90 degrees, 110 degrees, and x degrees. Find x. Answer with a number.