

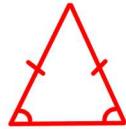
INTRODUCTION TO POLYGONS

- 1) State the name of a six-sided shape.

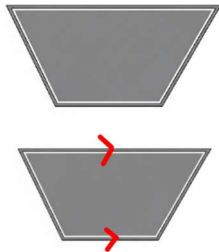
Hexagon

- 2) Explain the side and angle properties of an isosceles triangle. Then, sketch an isosceles triangle.

Two equal sides and two equal angles at the base



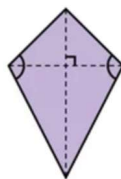
- 3) Draw the parallel lines on the trapezium pictured below.



- 4) How many 90° angles does a rectangle have?

Four

- 5) State three side and angle properties of a kite.



1. Two pairs of adjacent equal sides
2. One pair of opposite equal angles
3. Diagonals intersect at right angles

- 6) What is the difference between a regular polygon and an irregular polygon?

A regular polygon has all sides equal and all angles equal; an irregular polygon does not.

- 7) How many sides does a decagon have? **10**

- 8) State the name of the polygon pictured below.



Regular octagon

- 9) Name three polygons that have all sides equal and all angles equal.

Equilateral triangle, square, or any regular polygon

- 10) What is the sum of the interior angles of a rectangle?

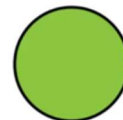


360°

- 11) Which polygon has the smallest possible number of sides?

Triangle – 3 sides

- 12) Is the shape pictured below a polygon? Why or why not?



No – a polygon has at least 3 sides and is enclosed by straight lines.

- 13) Name a quadrilateral with exactly one pair of parallel sides.

Trapezium

- 14) State the name of the polygon pictured below.



Irregular heptagon

15) True or false: A square is a rectangle. **True**

16) Name a polygon with no equal sides and no equal angles.

Scalene triangle or any irregular polygon

17) State the name of a 9-sided shape with equal side lengths and equal angles.

Regular nonagon

18) State the name of a 5-sided shape with equal side lengths and equal angles.

Regular pentagon

19) State the name of an 8-sided shape with unequal side lengths and unequal angles.

Irregular octagon

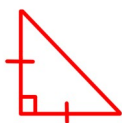
20) True or false: All rectangles are parallelograms. **True**

21) How many pairs of parallel sides does a parallelogram have?

Two pairs

22) True or false: The opposite angles in a parallelogram are not equal. **False**

23) Sketch a triangle that is both isosceles and right-angled.



24) Name a polygon with exactly two pairs of equal-length sides but no parallel sides.

Kite

25) Two sides of a shape are perpendicular if they intersect at __°.

90

26) Which has more sides: a nonagon or a heptagon? How many more?

Nonagon; 2 more sides

27) State the name of an 11-sided shape.

Hendecagon

28) State the name of a 12-sided shape.

Dodecagon

29) State the name of the shape pictured below.



Regular hexagon

30) State the name of the polygon pictured below.



Irregular decagon

31) True or false: All kites are rhombuses. **False**

32) State the name of the polygon pictured below.



Irregular dodecagon