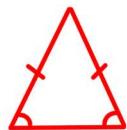


INTRODUCTION TO POLYGONS

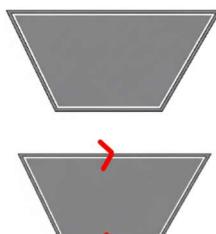
1) State the name of a six-sided shape.
Hexagon

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



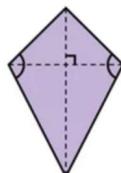
3) Draw the parallel lines on the trapezium pictured below.



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.

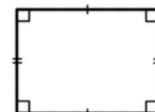


Regular octagon

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

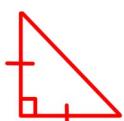
20) True or false: All rectangles are parallelograms. **True**

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 ${}^{\circ}$.

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