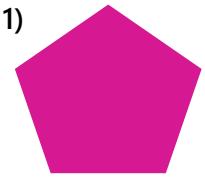
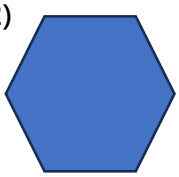
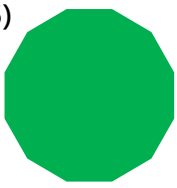
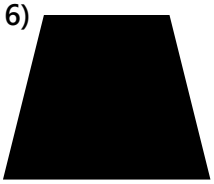
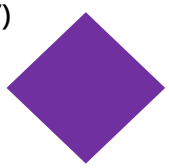
SYMMETRY

Task 1 – For each of the following state the type of polygon, the number of lines of symmetry and the order of rotational symmetry. The first one has been done for your as an example.

Shape	Type of Polygon	Number of Lines of Symmetry	Order of Rotational Symmetry
1) 	Regular pentagon	5	5
2) 	Regular hexagon	6	6
3)	Rectangle	2	2
4)	Regular heptagon	7	7
5) 	Regular dodecagon	12	12
6) 	Trapezium	1	1
7) 	Square	4	4
8)	Irregular pentagon	1	1

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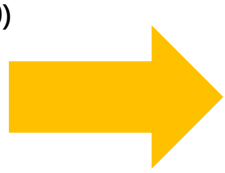
9)	Irregular dodecagon	4	4
10) 	Irregular heptagon	1	1

Task 2 – For each of the following shapes, state number of lines of symmetry and the order of rotational symmetry.

Shape	Number of Lines of Symmetry	Order of Rotational Symmetry
11)	4	4
12)	4	8
13)	0	1
14)	1	1

Task 3 – Fill in the blanks or answer the questions.

15) The number of lines of symmetry a regular polygon has, is equal to the number of _____ it has. sides (or angles)

16) The order of rotational symmetry of a regular polygon is equal to the number of _____ it has. sides (or angles)

17) Every two-dimensional shape has an order of rotational symmetry of at least _____. 1

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18) State the name of a shape with an infinite number of lines of symmetry. Circle

19) State a capital letter that has an order of rotational symmetry of 2. H, I or X

20) State the name of a polygon that has an order of rotational symmetry of 6. Regular hexagon

21) State the name of a polygon that has an order of rotational symmetry of 9. Regular nonagon

22) State a capital letter that has no lines of symmetry but has rotational symmetry.

N – order of rotational symmetry of 2

23) State a real-world object that has an approximate order of rotational symmetry of 5.

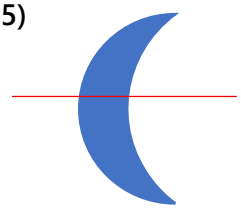
Sample answer: A starfish with 5 arms

24) State a real-world object that has an order of rotational symmetry of 8.

Sample answer: A stop sign

Task 4 – Draw all possible lines of symmetry on the following shapes.

25)



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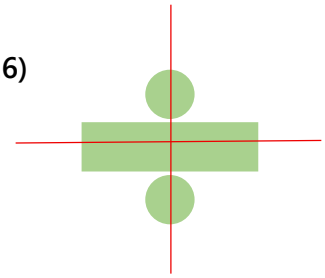

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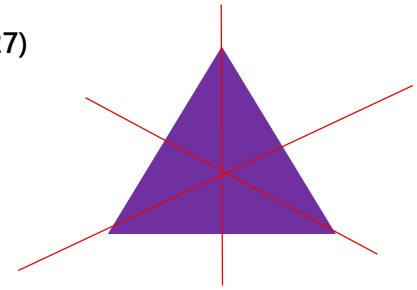

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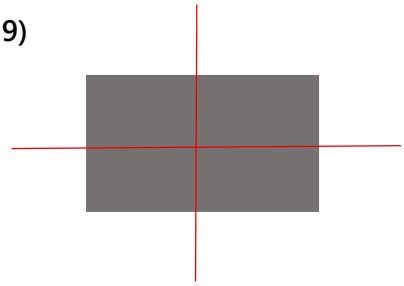
28)

None

29)



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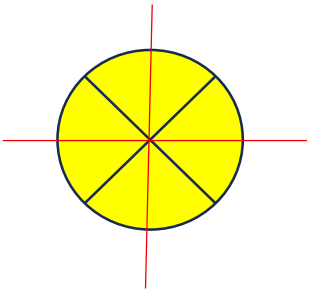

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