

## Rotational Symmetry

Name: \_\_\_\_\_ Class: S. 1 \_\_\_\_\_ ( ) Date: \_\_\_\_\_

Task 1

- Figure 1  does not have rotational symmetry.  
 has rotational symmetry of order \_\_\_\_\_ (\_\_\_\_\_ -fold),  
that is, after rotating \_\_\_\_\_ $^{\circ}$ , the figure will fit onto itself once.
- Figure 2  does not have rotational symmetry.  
 has rotational symmetry of order \_\_\_\_\_ (\_\_\_\_\_ -fold),  
that is, after rotating \_\_\_\_\_ $^{\circ}$ , the figure will fit onto itself once.
- Figure 3  does not have rotational symmetry.  
 has rotational symmetry of order \_\_\_\_\_ (\_\_\_\_\_ -fold),  
that is, after rotating \_\_\_\_\_ $^{\circ}$ , the figure will fit onto itself once.
- Figure 4  does not have rotational symmetry.  
 has rotational symmetry of order \_\_\_\_\_ (\_\_\_\_\_ -fold),  
that is, after rotating \_\_\_\_\_ $^{\circ}$ , the figure will fit onto itself once.
- Figure 5  does not have rotational symmetry.  
 has rotational symmetry of order \_\_\_\_\_ (\_\_\_\_\_ -fold),  
that is, after rotating \_\_\_\_\_ $^{\circ}$ , the figure will fit onto itself once.
- Figure 6  does not have rotational symmetry.  
 has rotational symmetry of order \_\_\_\_\_ (\_\_\_\_\_ -fold),  
that is, after rotating \_\_\_\_\_ $^{\circ}$ , the figure will fit onto itself once.
- Figure 7  does not have rotational symmetry.  
 has rotational symmetry of order \_\_\_\_\_ (\_\_\_\_\_ -fold),  
that is, after rotating \_\_\_\_\_ $^{\circ}$ , the figure will fit onto itself once.
- Figure 8  does not have rotational symmetry.  
 has rotational symmetry of order \_\_\_\_\_ (\_\_\_\_\_ -fold),  
that is, after rotating \_\_\_\_\_ $^{\circ}$ , the figure will fit onto itself once.
- Figure 9  does not have rotational symmetry.  
 has rotational symmetry of order \_\_\_\_\_ (\_\_\_\_\_ -fold),  
that is, after rotating \_\_\_\_\_ $^{\circ}$ , the figure will fit onto itself once.

Task 2

- Figure 1  does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.
- Figure 2  does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.
- Figure 3  does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.
- Figure 4  does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.
- Figure 5  does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.
- Figure 6  does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.
- Figure 7  does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.
- Figure 8  does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.
- Figure 9  does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.

Task 3

1. If the following figures have reflectional symmetry, draw all the axis (axes) of symmetry.

(a) Isosceles triangle



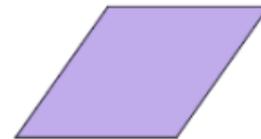
- does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.

(b) Rectangle



- does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.

(c) Rhombus



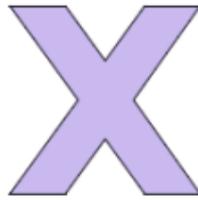
- does not have reflectional symmetry.  
 has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.

(d) Parallelogram



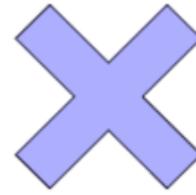
- does not have reflectional symmetry.
- has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.

(e)



- does not have reflectional symmetry.
- has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.

(f)



- does not have reflectional symmetry.
- has reflectional symmetry with \_\_\_\_\_ axis (axes) of symmetry.

2. If the following figures have rotational symmetry, mark the centre of rotation with an "x", and write down the order (number of folds) of the rotational symmetry.

(a) Isosceles triangle



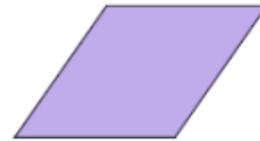
- does not have rotational symmetry.
- has rotational symmetry of order \_\_\_\_\_.

(b) Rectangle



- does not have reflectional symmetry.
- has \_\_\_\_\_-fold rotational symmetry.

(c) Rhombus



- does not have reflectional symmetry.
- has rotational symmetry of order \_\_\_\_\_.

(d) Parallelogram



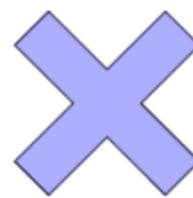
- does not have reflectional symmetry.
- has \_\_\_\_\_-fold rotational symmetry.

(e)



- does not have reflectional symmetry.
- has rotational symmetry of order \_\_\_\_\_.

(f)



- does not have reflectional symmetry.
- has \_\_\_\_\_-fold rotational symmetry.

3. Which of the above 6 figures has (have) both the reflectional and rotational symmetry? Only reflectional symmetry? Only rotational symmetry?

Both: \_\_\_\_\_

Only reflectional symmetry: \_\_\_\_\_ Only rotational symmetry: \_\_\_\_\_