



સાદ્યકારી:- પુમદી સમમિતી

પડી યીમાં મુદીમાં નિમ દિમા
દિં પુમદીમાં ઝક ઉમરું
મને ગેર (clockwise) અને
ધંચે ગેર (anticlockwise)
પુમદા રડિદે ઝક

પુમદ રેદર :- મરું વેદી દમડુ
પુમદી ડે ઝક ઉમરે આકાર અને
માપ દિર વેદી ઘરલામ કડે ડેદા
દિમરે મધિર લિદે ડે પુમદ ડા
રેદર રડિદે ઝકનાં પુમદ રેદર
રડિદે ઝક। પુરે ડેર દિં 360°
ડા રેદર ઘરદા ડે।

દિં પુરે ડેર દિં પુમદ યીમાં
ઢા (4) મધિતીમાં ઝક! →

પુમદ રેદર	પુમદ યી મધિતી
90°	
180°	
270°	
360°	

નૅટ:- ડેર દમડુ (નાં લિંડર) દિં રૂમ1
ડે પુમદ સમમિતી ડેદી ડે, રિડિર 360°
ડે પુમદ ડેદ ડે ઘામર દિં મુર આપદી
આડિર મધિતી દિં આ નાંદા ડે।

Introduction:- Rotational Symmetry

Movement of the hands of a clock is called a clockwise rotation, otherwise it is said to be anticlockwise.

Centre of rotation:- When an object rotates its shape and size do not change. The rotation turns an object about a fixed point. This fixed point is the centre of rotation or angle of rotation. A full rotation is of 360°.

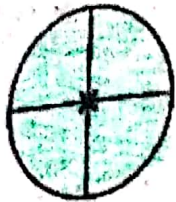
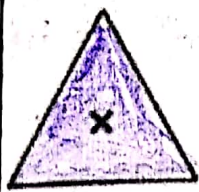
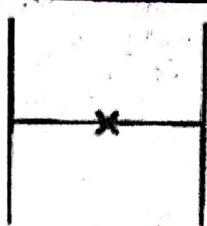
In a full turn, there are four positions:-

Angle of rotation	Position of rotation
90°	
180°	
270°	
360°	

Note:- Every object has a rotational symmetry of order 1, as it occupies same position after a rotation of 360°.

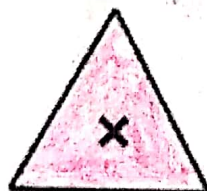
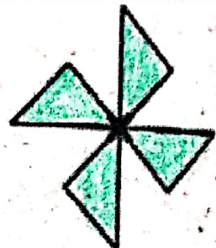
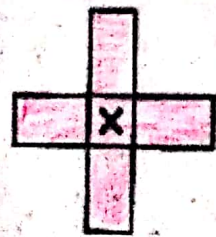
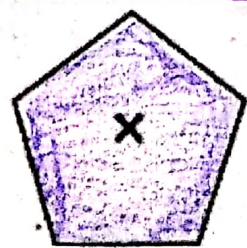
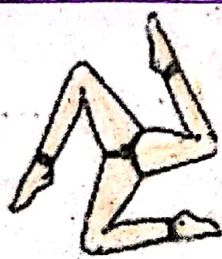
① ਜੇਹੇ ਚਿੱਤ੍ਰੇ ਚਿੱਤ੍ਰੇ ਵਿੱਚੋਂ ਕਿਹੜੇ ਚਿੱਤ੍ਰੇ ਵਿੱਚ 1 ਤੋਂ ਵੱਧ ਘੁੰਮਣੀ ਸਮਮਿਤੀ ਹੈ?

Which of the following figures have rotational symmetry of order more than one(1)?

					
(a)	(b)	(c)	(d)	(e)	(f)
ਉੱਤਰ:- 1 ਤੋਂ ਵੱਧ ਘੁੰਮਣੀ ਸਮਮਿਤੀ ਹੈ।	1 ਤੋਂ ਵੱਧ ਘੁੰਮਣੀ ਸਮਮਿਤੀ ਹੈ।	1 ਤੋਂ ਵੱਧ ਘੁੰਮਣੀ ਸਮਮਿਤੀ ਨਹੀਂ ਹੈ।	1 ਤੋਂ ਵੱਧ ਘੁੰਮਣੀ ਸਮਮਿਤੀ ਹੈ।	1 ਤੋਂ ਵੱਧ ਘੁੰਮਣੀ ਸਮਮਿਤੀ ਹੈ।	1 ਤੋਂ ਵੱਧ ਘੁੰਮਣੀ ਸਮਮਿਤੀ ਹੈ।
Ans: Rotational sy. of order more than one.	Rotational sy. of order more than one	Rotational sy. of order not more than one	Rotational sy. of order more than one	Rotational sy. of order more than one	Rotational sy. of order more than one.

② ਹੇਠ ਦਿੱਤੇ ਚਿੱਤ੍ਰੇ ਦੇ ਘੁੰਮਣੀ ਸਮਮਿਤੀ ਦਾ ਕ੍ਰਮ ਦੱਸੋ:-

Give the order of rotational symmetry for each figure:-

			
(a)	(b)	(c)	(d)
ਉੱਤਰ:- ਘੁੰਮਣੀ ਸਮਮਿਤੀ ਦਾ ਕ੍ਰਮ: 2	2	ਤਿੰਨ	ਚਾਰ
order of rotational sy: Two	Two	Three	Four
			
(e)	(f)	(g)	(h)
ਘੁੰਮਣੀ ਸਮਮਿਤੀ ਦਾ ਕ੍ਰਮ: ਚਾਰ	ਪੰਜ	ਛੇ	ਤਿੰਨ
Order of rotational sy: Four	Five	Six	Three