

Rotational Symmetry

Exercise 1

Decide whether the following shapes have rotational symmetry. For example



Rotational symmetry of order 5



No rotational symmetry



(1)



(2)



(3)



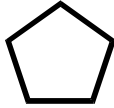
(4)



(5)



(6)



(7)



(8)



(9)



(10)



(11)



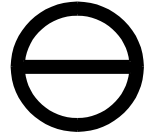
(12)



(13)



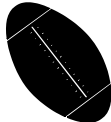
(14)



(15)



(16)



(17)



(18)



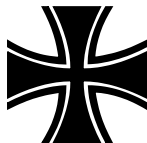
(19)



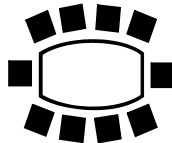
(20)



(21)



(22)



(23)



(24)



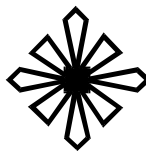
(25)



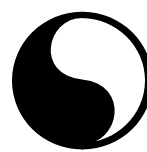
(26)



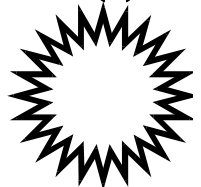
(27)



(28)



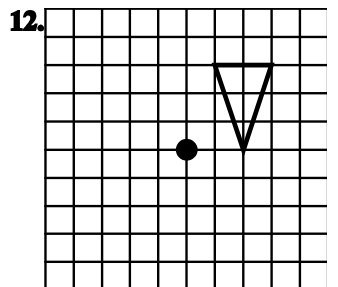
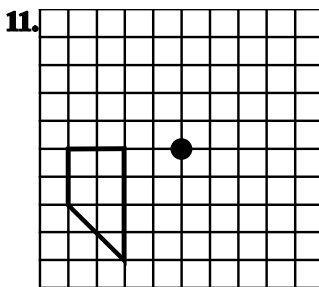
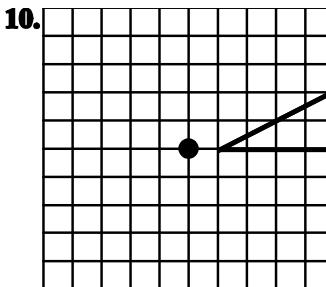
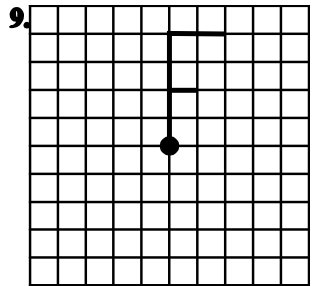
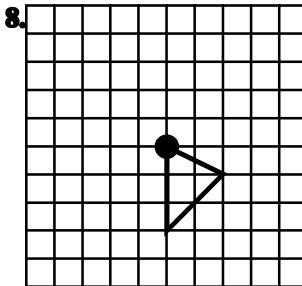
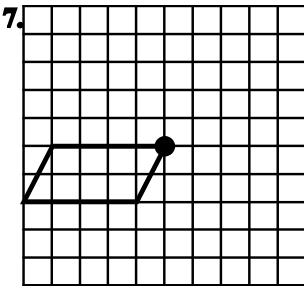
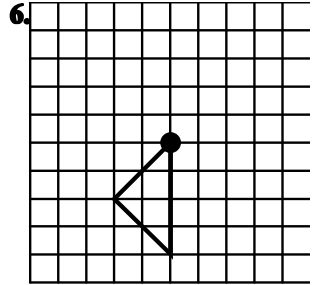
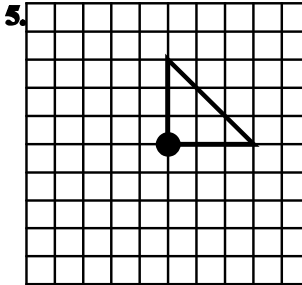
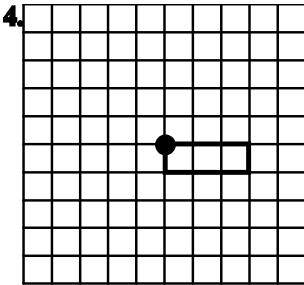
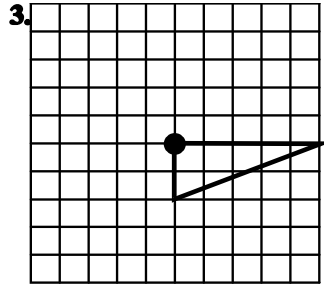
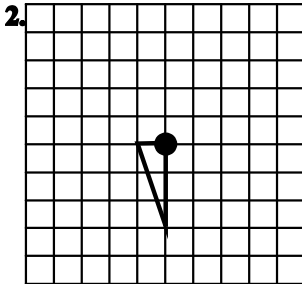
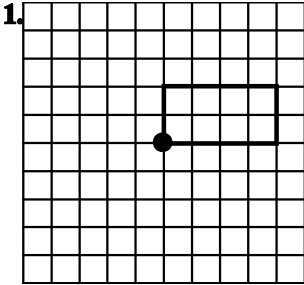
(29)



(30)

Exercise 2

Give the following shapes **half turn** symmetry about the marked point,



Exercise 3

Give the following shapes **quarter turn symmetry** about the marked point,

