

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)



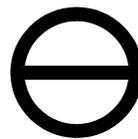
(12)



(13)



(14)



(15)



(16)



(17)



(18)



(19)



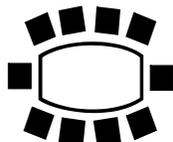
(20)



(21)



(22)



(23)



(24)



(25)



(26)



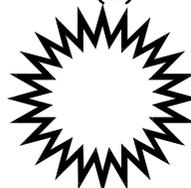
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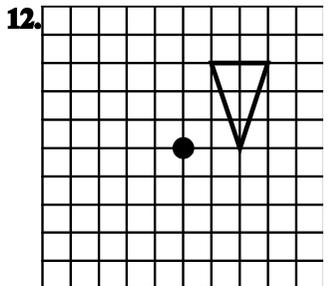
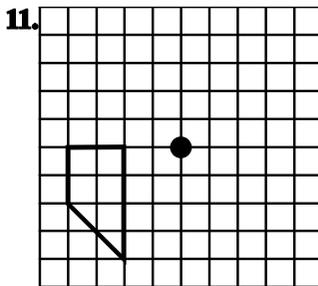
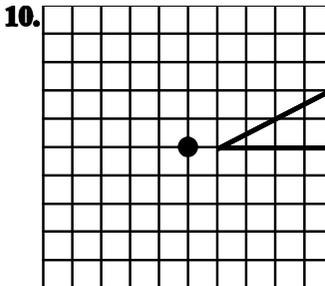
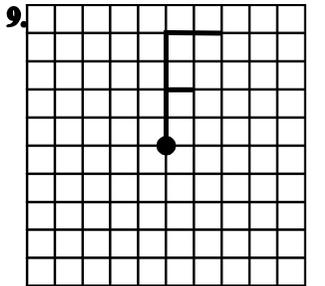
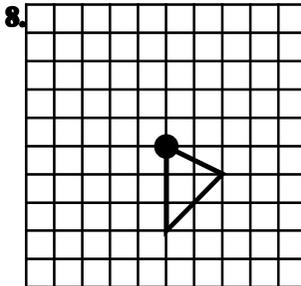
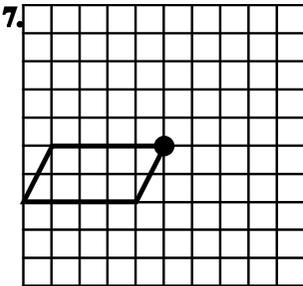
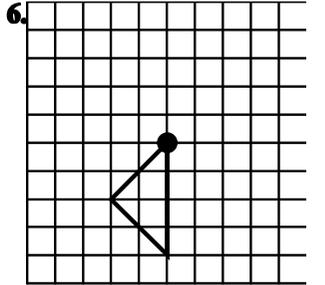
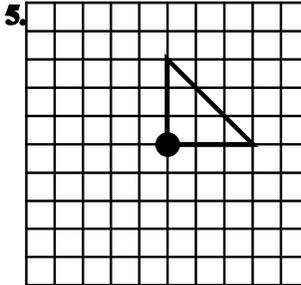
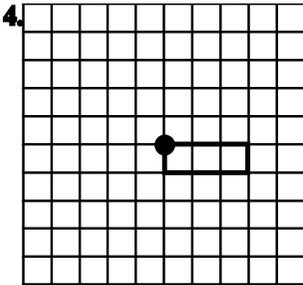
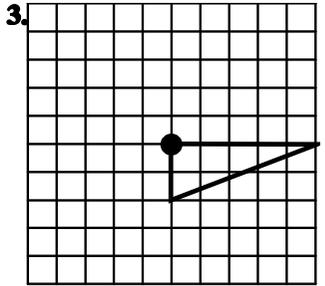
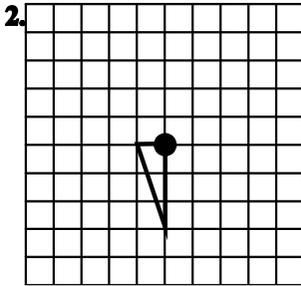
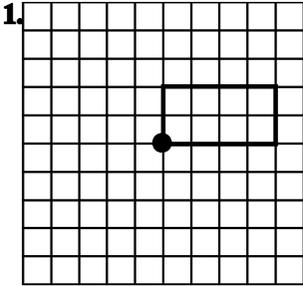
(29)



(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,

