I

O

T

Z

S

cyan

yellow

violet

red

green

L

3

Orange

blue

draw: 0,0 ; 0,1 ; 0,2 ; 0,3

• Origin
◉ new Origin

---
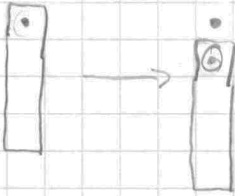
move down,   0° + 180°

set :   0,4   offset : 0,1

reset : 0,0

---

move down,   90° + 270°

set :   0,1 ; 1,1 ; 2,1 ; 3,1

reset :   0,0 ; 1,0 ; 2,0 ; 3,0

offset :   0,1

---
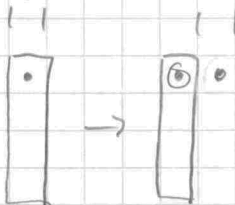
move left   0° + 180°

set :   −1,0 ; −1,1 ; −1,2 ; −1,3

reset :   0,0 ; 0,1 ; 0,2 ; 0,3

offset : −1,0

---

move left   90° + 270°

set :   −1,0

reset :   3,0

offset :   −1,0
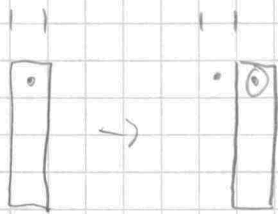
move right,   0° + 180°

set: 1,0 ; 1,1 ; 1,2 ; 1,3

reset: 0,0 ; 0,1 ; 0,2 ; 0,3

offset: 1,0

move right,   90° + 270°

set: 4,0

reset: 0,0

offset: 1,0
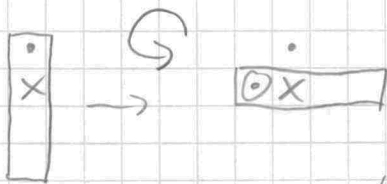
rotate left,   0° + 180°

x Pivot

set: -1,1 ; 1,1 ; 2,1

reset: 0,0 ; 0,2 ; 0,3

offset: -1,1
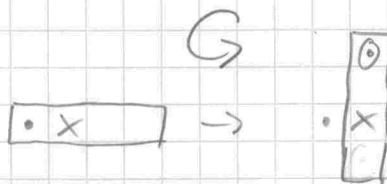
rotate left,   90° + 270°

set: 1,-2 ; 1,-1 ; 1,1

reset: 0,0 ; 2,0 ; 3,0

offset: 1,-2

(3)
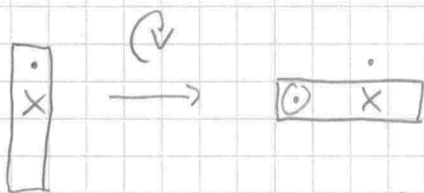
rotate right, 0° + 180°

set: -2,1 ; -1,1 ; 1,1

reset: 0,0 ;   0,2 ; 0,3

offset: -2,1
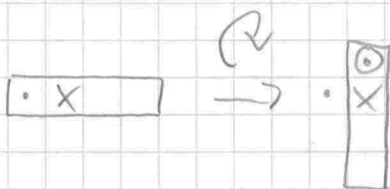
rotate right, 90° + 270°

set: 1,-1 ; 1,1 ; 1,2

reset: 0,0 ; 2,0 ; 3,0

offset: 1,-1

draw :   0,0 ; 0,1 ; 1,0 ; 1,1

---

move   down $0° + 90° + 180° + 270°$

$\boxed{X} \rightarrow \boxed{X}$ set: ~~0,0~~ ; ~~1,1~~ ; 0,2 ; 1,2

reset :   0,0 ; 1,0

offset :   0,1

---

move left $0° + 90° + 180° + 270°$

$\boxed{X} \rightarrow \boxed{X}$ set : $-1,0$; $-1,1$

reset : $1,0$, $1,1$

offset : $-1,0$

---

move right
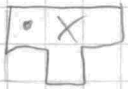
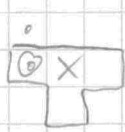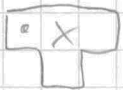$\boxed{X} \rightarrow \boxed{X}$ set : $2,0$; $2,1$

reset :   0,0 ; 0,1

offset :   1,0
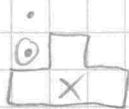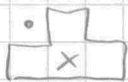
no   rotations

draw : 0,0 ; 1,0 ; 2,0 ; 1,1

---

  move down, 0°

set : 0,1 ; 2,1 ; 1,2
reset : 0,0 ; 1,0 ; 2,0
offset : 0,1
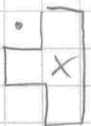
  move down, 180°

set : 0,2 ; 1,2 ; 2,2
reset : 1,0 ; 0,1 ; 2,1
offset : 0,1

  move down, 90° ✓

set : 0,2 ; 1,3
reset : 1,0 ; 0,1
offset : 0,1
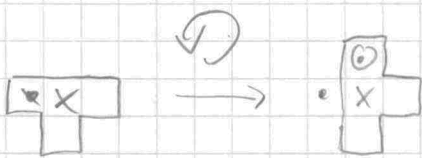
  move down, 270° ✓

set : 0,3 ; 1,2
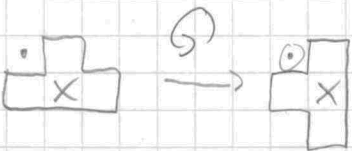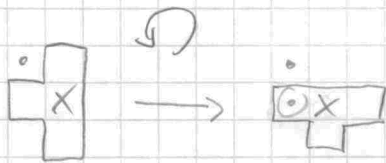reset : 0,0 ; 1,1
offset : 0,1

⑥

rotate left 0°

set: 1, -1
reset: 0, 0
offset: 1, -1
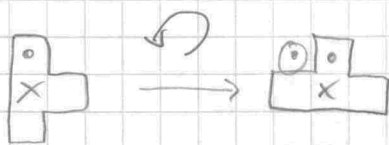
rotate left 180°

set: 1, 2
reset: 2, 1
offset: 0, 0

rotate left 90°

set: 2, 1
reset: 1, 0
offset: 0, 1

rotate left 270°

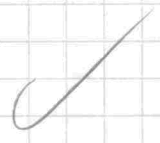

set: -1, 1
reset: 0, 2
offset: -1, 0

⑦

move left , 0°

set: -1,0 ; 0,1

reset: 1,1 ; 2,0

offset: -1,0

move left , 270°

set: -1,0 ; -1,1 ; -1,2

reset: 0,0 ; 0,2 ; 1,1

offset: -1,0

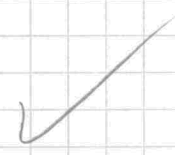move left, 180°

set: -1,1 ; 0,0

reset: 1,0 ; 2,1

offset: -1,0

move left, 90°

set: 0,0 ; -1,1 ; 0,2

reset: 1,0 ; 1,1 ; 1,2
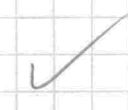
offset: -1,0

move right, 0°

set: 3,0 ; 2,1
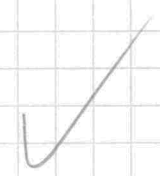reset: 0,0 ; 1,1
offset: 1,0

move right, 90°

set: 2,0 ; 2,1 ; 2,2
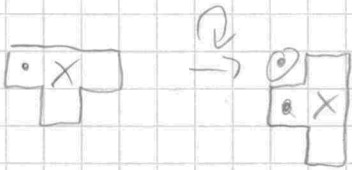reset: 0,1 ; 1,0 ; 1,2
offset: 1,0

move right, 180°

set: 3,1 ; 2,0
reset: 0,0 ; 0,1 ; 1,0
offset: 1,0

move right, 270°

set: 1,0 ; 1,2 , 2,1
reset: 0,0 ; 0,1 ; 0,2
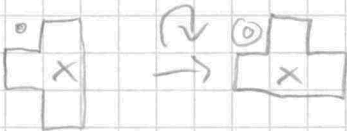offset: 1,0

rotate right, 0°

set: 1, -1
reset: 2, 0
offset: 0, -1

rotate right, 90°

set: 2, 1
reset: 1, 2
offset: 0, 0
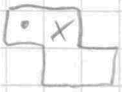
rotate right, 180°

set: 1, 2
reset: 0, 1
offset: 1, 0

rotate right, 270°

set: -1, 1
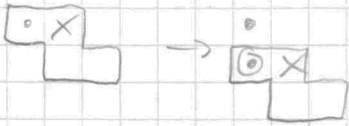reset: 0, 0
offset: -1, 1

draw

0,0 ; 1,0 ; 1,1 ; 2,1

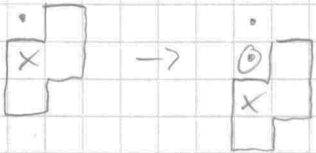
down , 0° , 180°

set: 0,1 ; 1,2 ; 2,2   offset:

reset: 0,0 ; 1,0 , 2,1   0,1
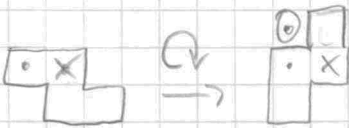
---

down , 90° , 270°

set : 1,2 ; 0,3

reset: 1,0 ; 0,1   offset: 0,1

+ left
rotate right, 0° 180°

set : 1,-1 ; 0,1

reset : 2,1 ; 1,1

offset : 0,-1

+ left
rotate right, 90° , 270°

set : 0,0 ; 2,1

reset : 0,2 ; 0,1

offset : 0,0

move right, 0°, 180°

set :   3,1 ;   2,0
reset :   0,0 ;   1,1
offset :   1,0

move right, 90°, 270°

set :   2,0 ;   2,1 ;   1,2
reset   0,1 ;   0,2 ;   1,0
offset   1,0
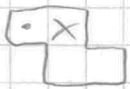
move left, 0°, 180°

set :   -1,0 ;   0,1
reset :   1,0 ;   2,0
offset: -1,0

move left, 90°, 270°

set :   -1,1 ; -1,2 ; 0,0
reset :   1,0 ;   1,1 ; 0,2
offset: -1,0
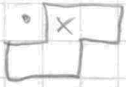
draw

0,1 ; 1,1 ; 1,0 ; 2,0

---

down   0°, 180°

set: 0,2 ; 1,2 ; 2,1

reset: 0,1 ; 1,0 ; 2,0

offset: 0,1

down , 90°, 270°

set: 0,2 ; 1,3

reset: 0,0 ; 1,1

offset: 0,1

---

rotate right (+ left) 0°, 180°

set: 0,0 ; 0,-1

reset: 0,1 ; 2,0

offset: 0,-1

rotate right (+ left) 90°, 270°

set: 1,0 ; 2,0

reset: 0,0 ; 1,2

offset: 0,0

(13)
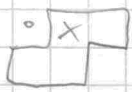
move right 0° 180°

set: 2,1 ; 3,0

reset: 1,0 ; 0,1

offset: 1, 0

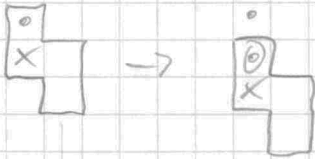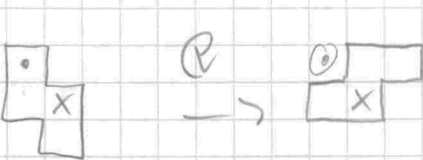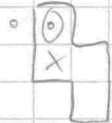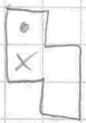move right, 90°, 270°

set: 1,0 ; 2,1 ; 2,2

reset: 0,0 ; 0,1 ; 1,2

offset: 1,0

---
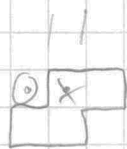
move left, 0°, 180°

set: 0,0 ; -1, 1

reset: 2,0 ; 1,1

offset: -1, 0

move left, 90°, 270°

set: -1,0 ; -1,1 ; 0,2

reset: 0,0 ; 1,1 ; 1,2

offset: -1,0

(14)

draw

0,0 ; 0,1 ; 0,2 ; 1,2

---
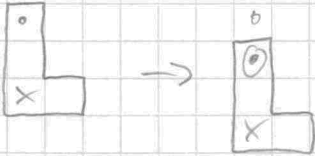
down   0°

set: 0,3 ; 1,3

red: 0,0 ; 1,2

offset: 0,1

down   90°

set: 1,1 ; 2,1 ; 0,2

red: 0,0 ; 1,0 ; 2,0
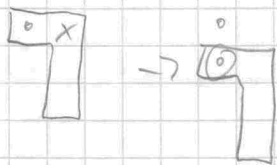
offset: 0,1

down   180°

set: 0,1 ; 1,3

red: 0,0 ; 1,0
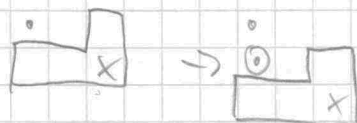
offset   0,1

down   270°

set: 0,2 ; 1,2 ; 2,2

red: 2,0 ; 0,1 ; 1,1

offset: 0,1

move right , 0°

set: 1,0; 1,1; 2,2

reset: 0,0; 0,1; 0,2

offset: 1,0

move right , 270°

set: 3,0; 3,1

reset: 0,1; 2,0

offset: 1,0
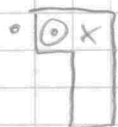
move right, 180°

set: 2,0; 2,1; 2,2

reset: 0,0; 1,1; 1,2

offset: 1,0
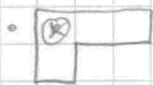
move right, 90°

set: 1,1; 3,0

reset: 0,0; 0,1

offset: 1,0

move left, 0°

set: -1,0 ; -1,1 ; -1,2

reset: 0,0 ; 0,1 ; 1,2

offset: -1,0

move left, 270°

set: -1,1 ; 1,0

reset: 2,0 ; 2,1

offset: -1,0

move left, 180°

set: 0,1 ; 0,2 ; -1,0

reset: 1,0 ; 1,1 ; 1,2

offset: -1,0

move left, 90°

set: -1,0 ; -1,1

reset: 0,1 ; 2,0

offset: -1,0
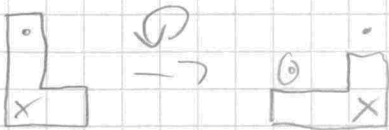
rotate left, 0°

set: -1, 2 ; -2, 2

reset: 0,0 ; 1,2

offset: -2, 1

rotate left, 270°

set: 2,2 ; 2,3

reset: 0,1 ; 2,0

offset: 1,1

rotate left, 180°

set: 2,0 ; 3,0

reset: 0,0 ; 1,2

offset 1,0

rotate left, 90°

set: 0,-1 ; 0,-2

reset: 0,1 ; 2,0

offset: 0,-2

rotate right, 0°

set: 0,3 ; 2,2

reset: 0,0 ; 0,1 ;

offset: 0,2

rotate right, 90°

set: -1,0 ; 0,2

reset: 1,0 ; 2,0

offset: -1,0

rotate right, 180°

set: -1,0 ; 1,-1

reset: 1,1 ; 1,2

offset: -1,-1

rotate right, 270°

set: 2,-1 ; 3,1

reset: 0,1 ; 1,1

offset: 2,-1

draw
0,2 ; 1,0 ; 1,1 ; 1,2

down   0°

set: 0,3 ; 1,3

reset: 0,2 ; 1,0

offset: 0,1

down , 90°

set: 0,2 ; 1,2 ; 2,2

reset: 0,0 ; 1,1 ; 2,1

offset: 0,1

down 180°

set: 0,3 ; 1,1

reset: 0,0 ; 1,0

offset: 0,1

down 270°

set: 0,1 ; 1,1 ; 2,2

reset: 0,0 ; 1,0 ; 2,0

offset: 0,1

rotate left, 0°

set: 1, 3 ; -1, 2

reset: 1, 0 ; 1, 1

offset: -1, 2
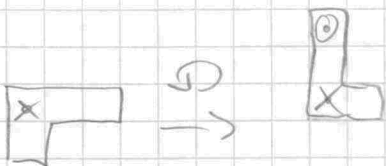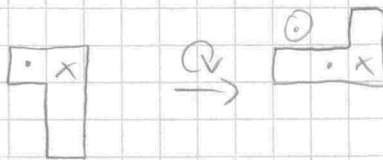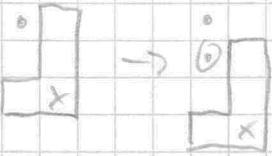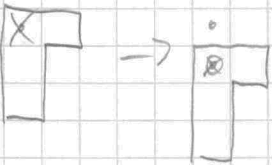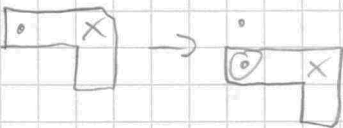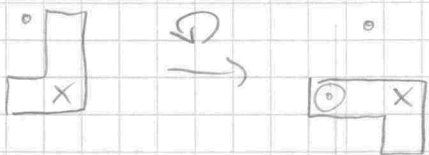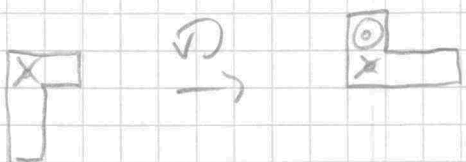

rotate left, 270°

set: 2, 2 ; 3, 0

reset: 0, 0 ; 1, 0

offset: 2, 0

rotate left, 180°

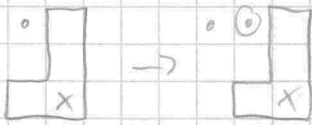set: 2, 0 ; 0, -1

reset: 0, 1 ; 0, 2

offset: 0, -1

rotate left, 90°

set: -1, 1 ; 0, 1

reset: 1, 1 ; 2, 1

offset: -1, -1

move right, 0°

set: 2,0; 2,1; 2,2

reset: 1,0; 1,1; 0,2

offset: 1,0

move right, 270°

set: 3,0; 3,1

reset: 0,0; 2,1

offset: 1,0

move right, 180°

set: 1,1; 1,2; 2,0

reset: 0,0; 0,1; 0,2

offset: 1,0

move right, 90°

set: 1,0; 3,1

reset: 0,0; 0,1

offset: 1,0

move left, $0°$

set: $0,0$; $0,1$; $-1,2$

reset: $1,0$; $1,1$; $1,2$

offset: $-1,0$

move left, $270°$

set: $-1,0$; $1,1$

reset: $2,0$; $2,1$

offset: $-1,0$

move left, $180°$

set: $-1,0$; $-1,1$; $-1,2$

reset: $1,0$; $0,1$; $0,2$

offset: $-1,0$

move left, $90°$

set: $-1,0$; $-1,1$

reset: $0,0$; $2,1$

offset: $-1,0$

rotate right, 0°

ret: 2,2 ; 3,2

reset: 1,0 ; 0,2

offset: 1,1

rotate right, 90°

ret: 0,2 ; 0,3

reset: 0,0 ; 2,1

offset: 0,1

rotate right, 180°

ret: -1,0 ; -2,0

reset: 1,0 ; 0,2

offset: -2,0

rotate right, 270°

ret: 2,-1 ; 2,-2

reset: 0,0 ; 2,1

offset: 1,-2

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