



Lesson 1 | Warmup

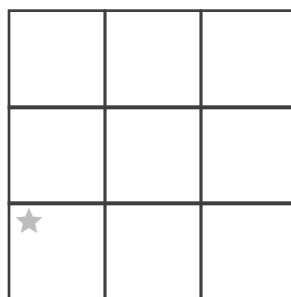
This is a Pixel Bots exercise. In Pixel Bots we will program bots to paint pictures using Code Elements.

Code Elements



Problem 1

Pixel Bot Read Code: You are a pixel bot. Read the code and paint the picture.





Lesson 1 | Worksheet 1

This is a Pixel Bots exercise. In Pixel Bots we program bots to paint pictures using Code Elements.

Code Elements



Example



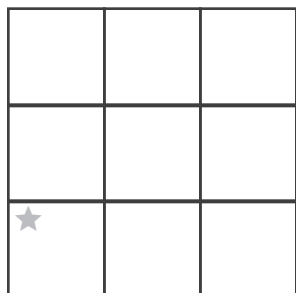
Problems

You are a pixel bot. Read the code and paint the picture.

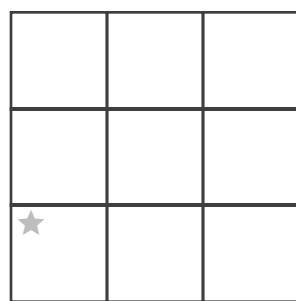




Lesson 1 | Worksheet 1 (cont'd)



1	↓
2	↖
3	←
4	↗



1	↖
2	←
3	↖
4	↓
5	↖



1	↖
2	↑
3	↖
4	↑
5	↖





Lesson 2 | Warmup

This is a Pixel Bots exercise. In Pixel Bots we program bots to paint pictures using Code Elements.

Code Elements



Example



1	→
2	🖍
3	↑
4	↑
5	🖍

Problems

You are a pixel bot. Read the code and paint the picture.



1	↑
2	→
3	🖍
4	↑
5	→
6	🖍
7	↓
8	↓
9	🖍





Lesson 2 | Worksheet 1

This is a Pixel Bots exercise. In Pixel Bots we program bots to paint pictures using Code Elements.

Code Elements



Problem

You are a coder. Write code to command the pixel bot to paint the picture.



1	
2	
3	
4	
5	
6	



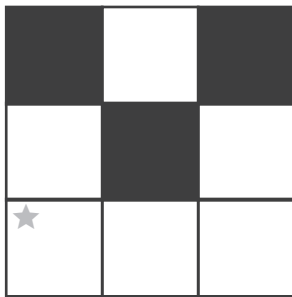


Lesson 4 | Worksheet 1

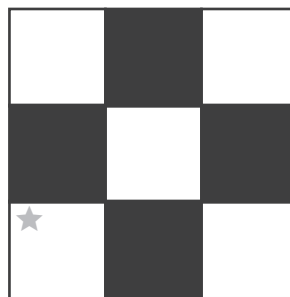
This is an online Pixel Bots exercise. In Pixel Bots we program bots to paint pictures using Code Elements.

Problems

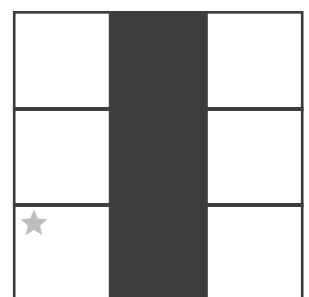
You are a coder. Write code to command the pixel bot to paint the pictures.



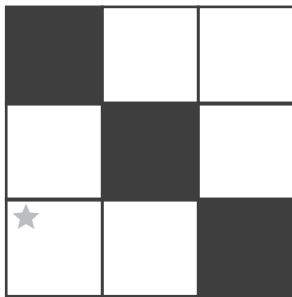
- ☐ done
- ☐ explained



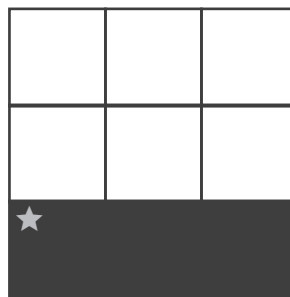
- ☐ done
- ☐ explained



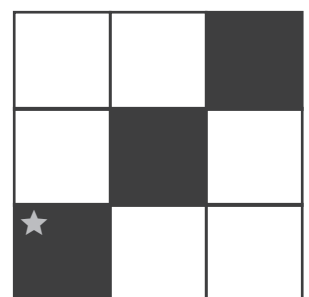
- ☐ done
- ☐ explained



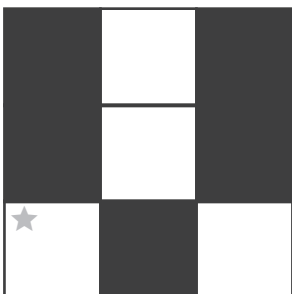
- ☐ done
- ☐ explained



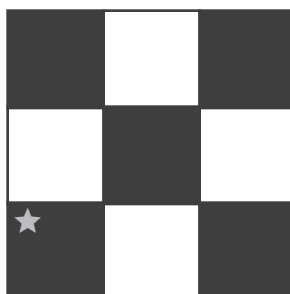
- ☐ done
- ☐ explained



- ☐ done
- ☐ explained



- ☐ done
- ☐ explained



- ☐ done
- ☐ explained





Lesson 4 | Exit Ticket

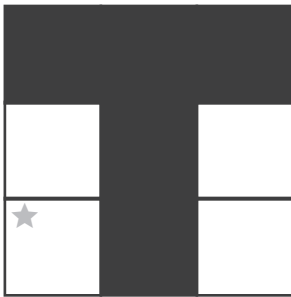
This is a Pixel Bots exercise. In Pixel Bots we program bots to paint pictures using Code Elements.

Code Elements



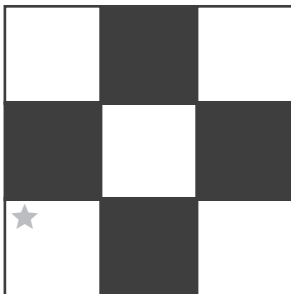
Problem

You are a coder. Write code to command the pixel bot to paint the picture.



1
2
3
4
5
6

7
8
9
10
11
12



1
2
3
4
5
6

7
8
9
10
11
12





Lesson 6 | Warmup

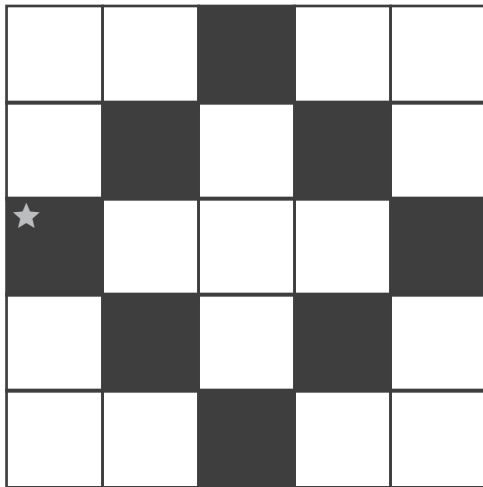
This is a Pixel Bots exercise. In Pixel Bots we program bots to paint pictures using Code Elements.

Code Elements



Problem

You are a coder. Write code to command the pixel bot to paint the picture.



1		16	
2		17	
3		18	
4		19	
5		20	
6		21	
7		22	
8		23	
9		24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	





Lesson 6 | Worksheet 1

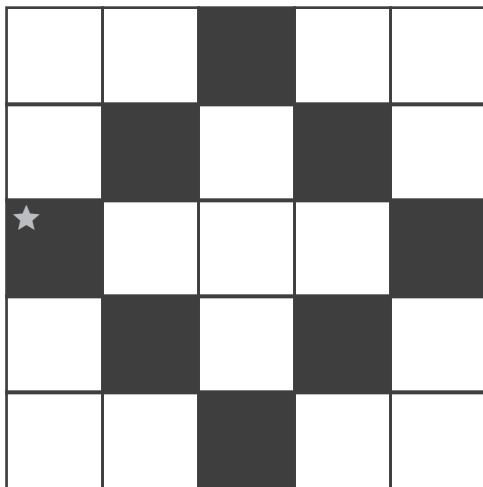
This is a Pixel Bots JavaScript exercise. In Pixel Bots we program bots to paint pictures using Code Elements.

Code Elements

up() down()
left() right()
paint()

Problem

You are a coder. Write code to command the pixel bot to paint the picture.



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





Lesson 6 | Worksheet 2

This is a Dance Bot exercise. In Dance Bot we program bots to dance.

Code Elements

<code>up()</code>	<code>down()</code>
<code>left()</code>	<code>right()</code>
<code>spinLeft()</code>	<code>spinRight()</code>
<code>wait()</code>	

Problem

You are a coder. Write code to command to your bot to perform the same dance your teacher is doing.

1		16	
2		17	
3		18	
4		19	
5		20	
6		21	
7		22	
8		23	
9		24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	

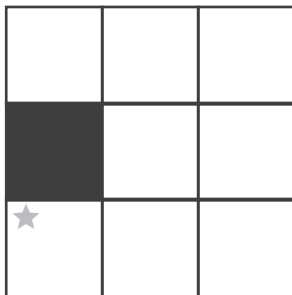


Lesson 7 | Worksheet 1

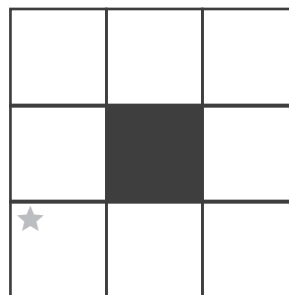
This is an online Pixel Bots exercise. In Pixel Bots we program bots to paint pictures using Code Elements.

Problems

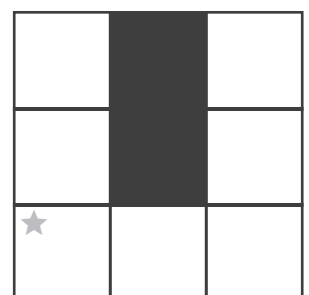
You are a coder. Write code to command the pixel bot to paint the pictures.



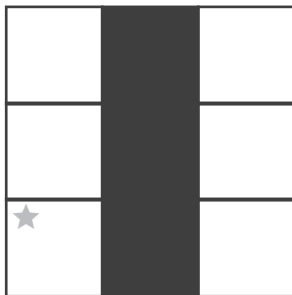
- ☐ done
- ☐ explained



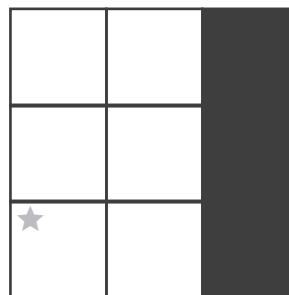
- ☐ done
- ☐ explained



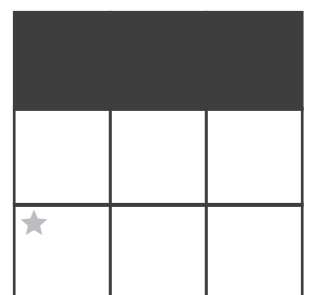
- ☐ done
- ☐ explained



- ☐ done
- ☐ explained



- ☐ done
- ☐ explained



- ☐ done
- ☐ explained



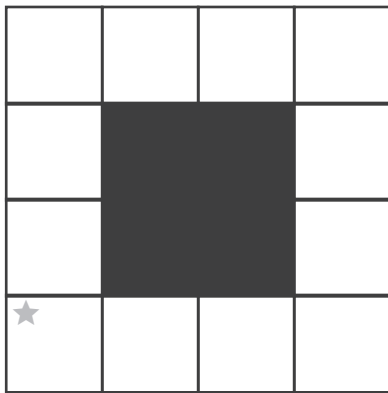


Lesson 7 | Worksheet 2

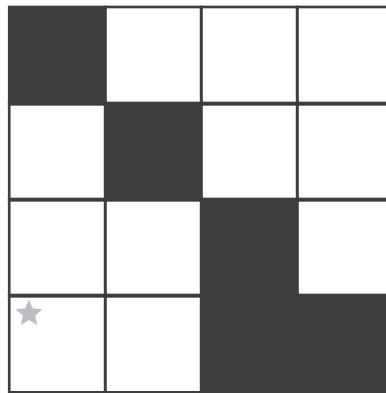
This is an online Pixel Bots exercise. In Pixel Bots we program bots to paint pictures using Code Elements.

Problems

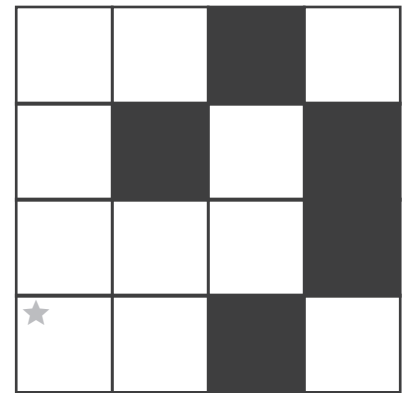
You are a coder. Write code to command the pixel bot to paint the pictures.



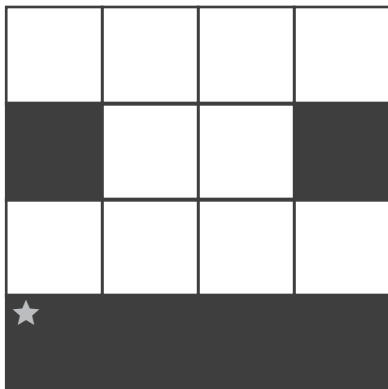
- ☐ done
- ☐ explained



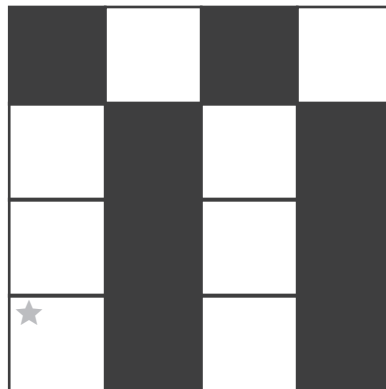
- ☐ done
- ☐ explained



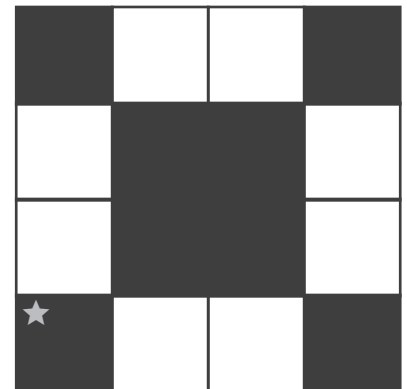
- ☐ done
- ☐ explained



- ☐ done
- ☐ explained



- ☐ done
- ☐ explained



- ☐ done
- ☐ explained





Lesson 7 | Exit Ticket

This is a Pixel Bots JavaScript exercise. In Pixel Bots we program bots to paint pictures using Code Elements.

Code Elements

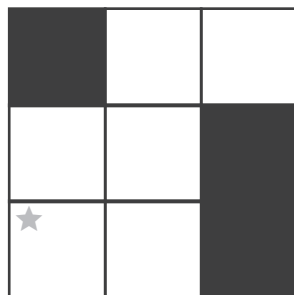
up() down()
left() right()
paint()

Problems

1) Which of the following has a syntax error:

- a. up()
- b. down()
- c. right)
- d. left()

2) You are a coder. Write code to command the pixel bot to paint the picture.



1	
2	
3	
4	
5	
6	
7	
8	
9	





Lesson 8 | Warm-up

This is a Pixel Bots JavaScript exercise. In Pixel Bots we program bots to paint pictures using Code Elements.

Code Elements

up() down()
left() right()
paint()

Problems

You are a coder. Write code to command the pixel bot to paint the picture.



1	
2	
3	
4	
5	
6	
7	
8	
9	
10	





Lesson 8 | Exit Ticket

This is a Mouse Bot JavaScript exercise. In Mouse Bot we program the bot to eat the cheese.

Code Elements

up() move()
right() getCheese()

Problems

You are a coder. Write code to command the pixel bot to paint the picture.



1	
2	
3	
4	
5	
6	
7	
8	





Lesson 9 | Warm Up

This is a Mouse Bot JavaScript exercise. In Mouse Bot we program the bot to eat the cheese.

Code Elements

up() move()
right() getCheese()

Problems

You are a coder. Write code to command the pixel bot to paint the picture.



1	
2	
3	
4	
5	
6	
7	
8	
9	
10	





Coders & Bots

Coders



Navigator: You are responsible for the overall plan for the program. Guide the Writer and keep track of what your program is doing.



Writer: Add code to your program. Pay attention to syntax.

Bots



Stepper: Step through the program and read each step aloud. Keep your finger on the step you are reading.



Actor: Listen carefully to each line of code the Stepper says aloud. Using the materials available, show what each line of code does.

{ } Coding Paper

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

11	
12	
13	
14	
15	
16	
17	
18	
19	
20	



Coding Paper

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	

31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	

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	

31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	

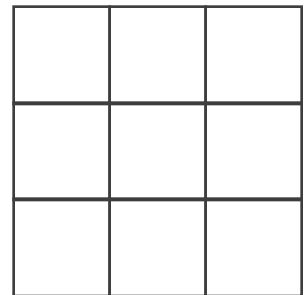
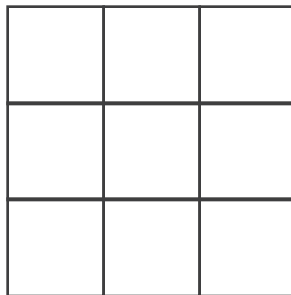
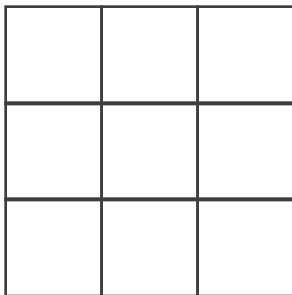
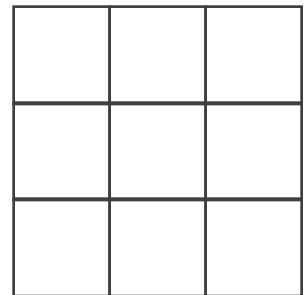
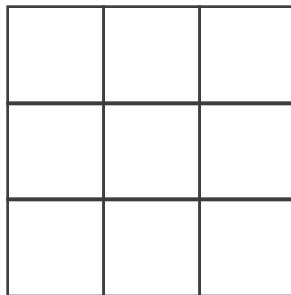
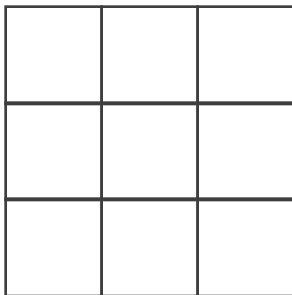
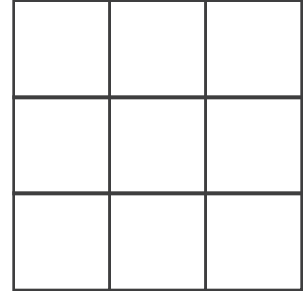
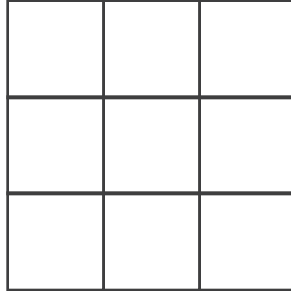
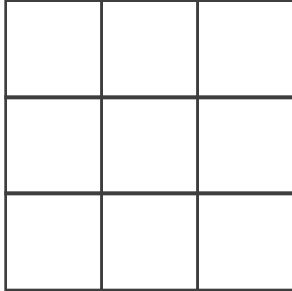


Coding Paper

1		31		61	
2		32		62	
3		33		63	
4		34		64	
5		35		65	
6		36		66	
7		37		67	
8		38		68	
9		39		69	
10		40		70	
11		41		71	
12		42		72	
13		43		73	
14		44		74	
15		45		75	
16		46		76	
17		47		77	
18		48		78	
19		49		79	
20		50		80	
21		51		81	
22		52		82	
23		53		83	
24		54		84	
25		55		85	
26		56		86	
27		57		87	
28		58		88	
29		59		89	
30		60		90	

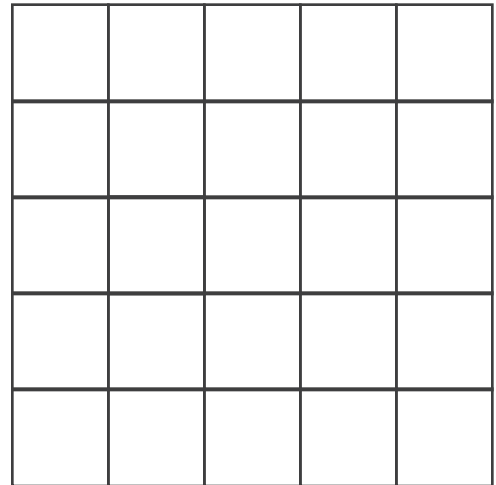
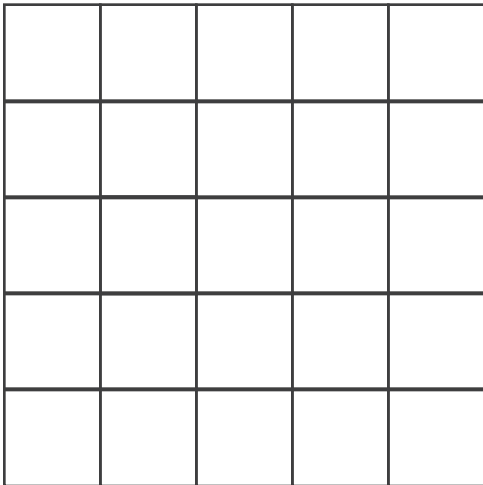
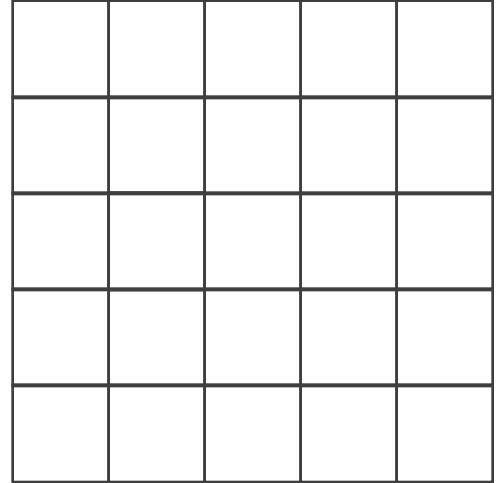
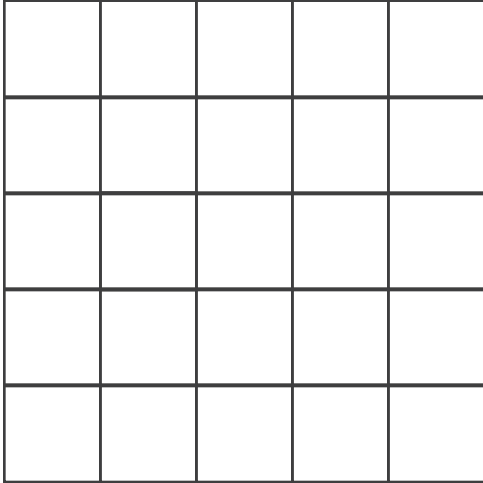


Small Pixel Grids



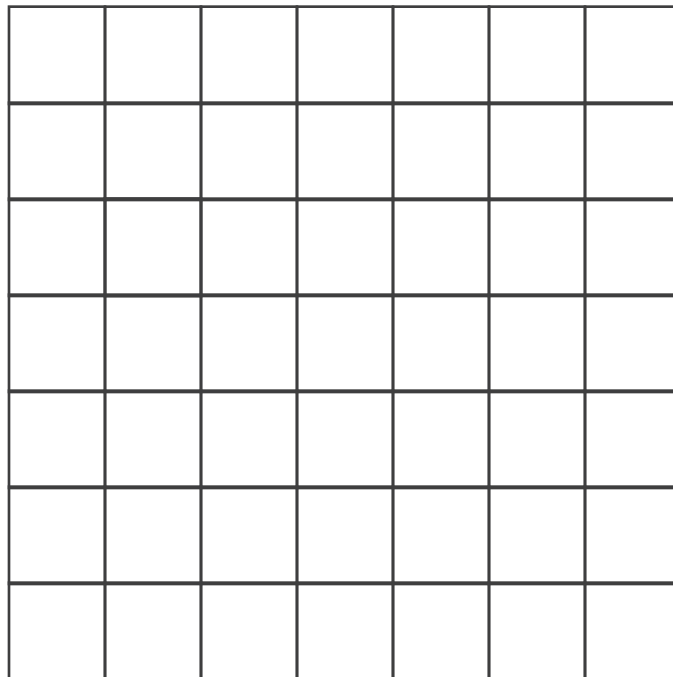
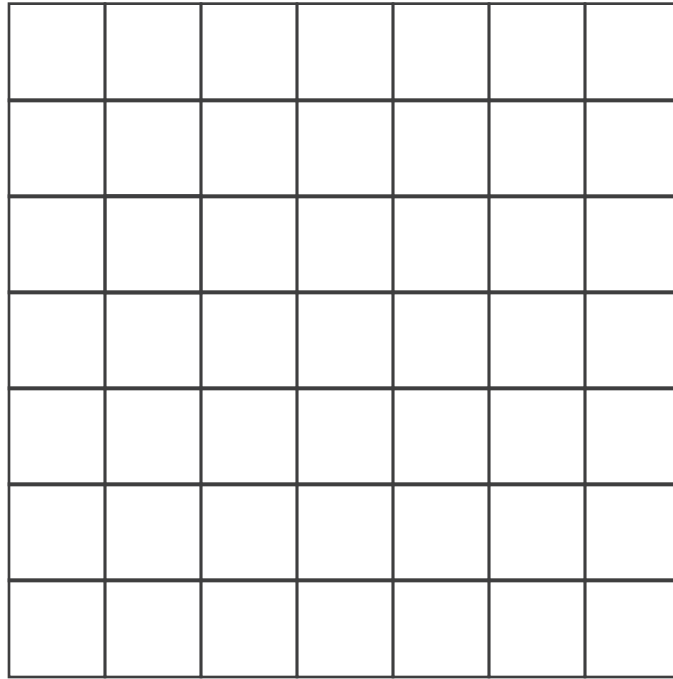


Medium Pixel Grids



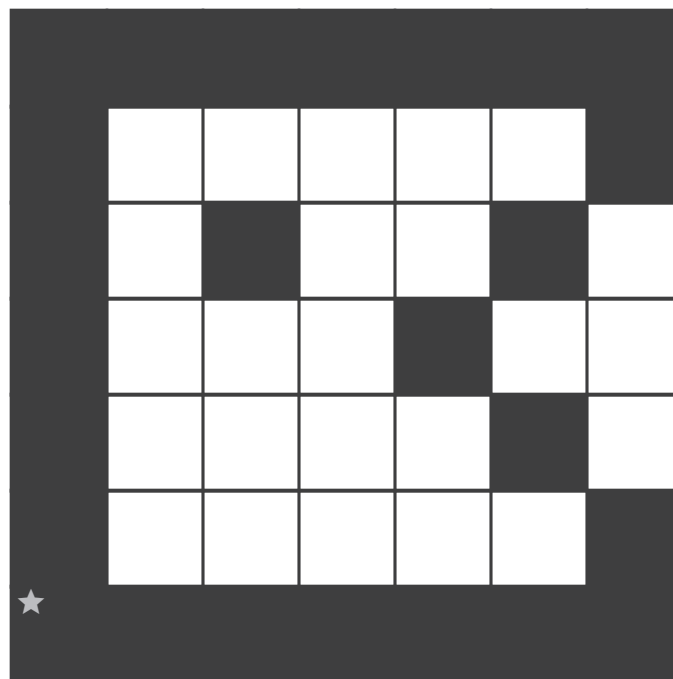
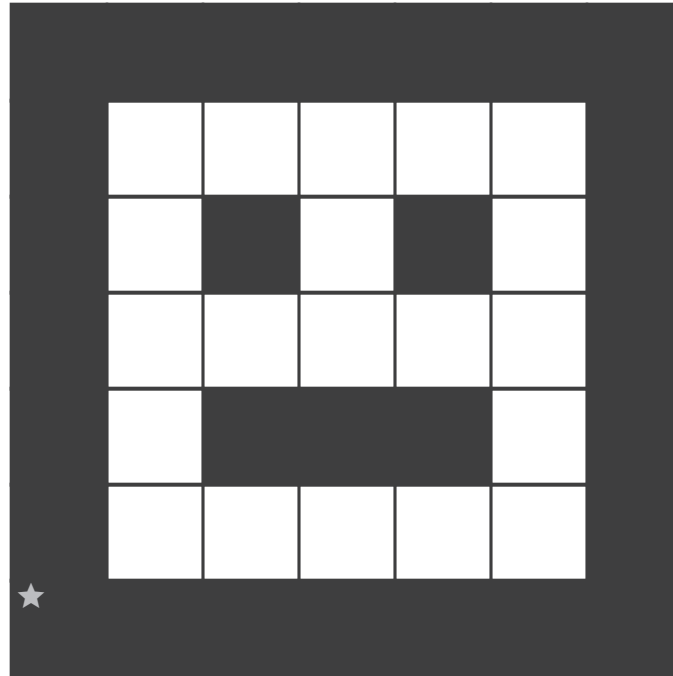


Large Pixel Grid





Challenge Problems - 1





Challenge Problems - 2

