



Erasmus+

LEARN TO PROGRAM

ICAROS PROJECT
IES MAR DE ALBORÁN





ICAROS I

INSTRUCTION SET

TR -TURN RIGHT

TL - TURN LEFT

A - ADVANCE



ICAROS I

INSTRUCTION SET. LOOPS

```
WHILE NB  
  Y  
END
```

ICAROS will do Y while there is nothing blocking it.



ICAROS I

INSTRUCTION SET. LOOPS

```
FOR X  
  Y  
END
```

ICAROS will do Y X times.



ICAROS I

INSTRUCTION SET. LOOPS

- Is an obstacle. ICAROS has to avoid it.

EXIT

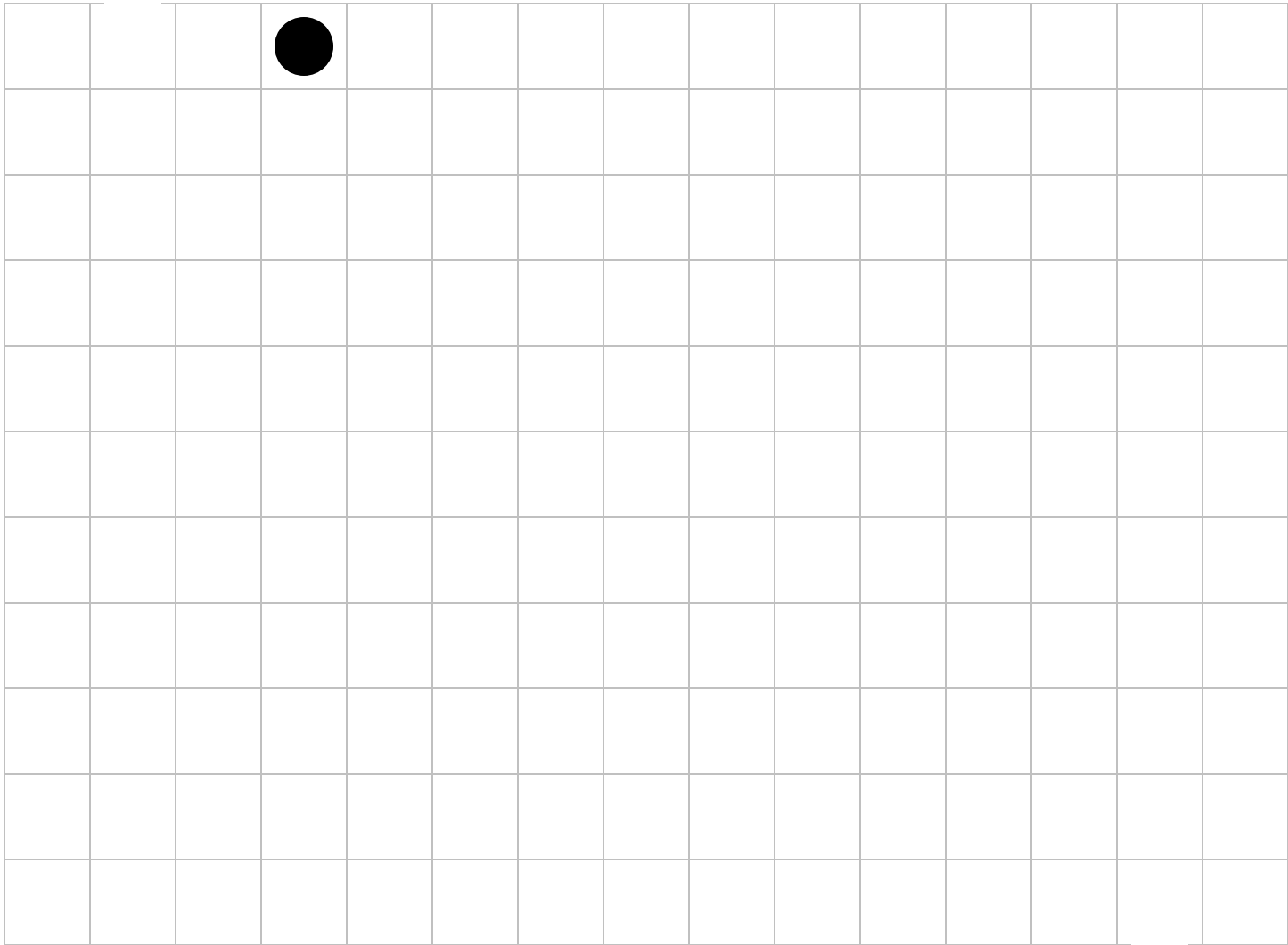
**Objective: Get into the plane area and
get out by the exit**

ENTRANCE



EXIT

Exercise 2

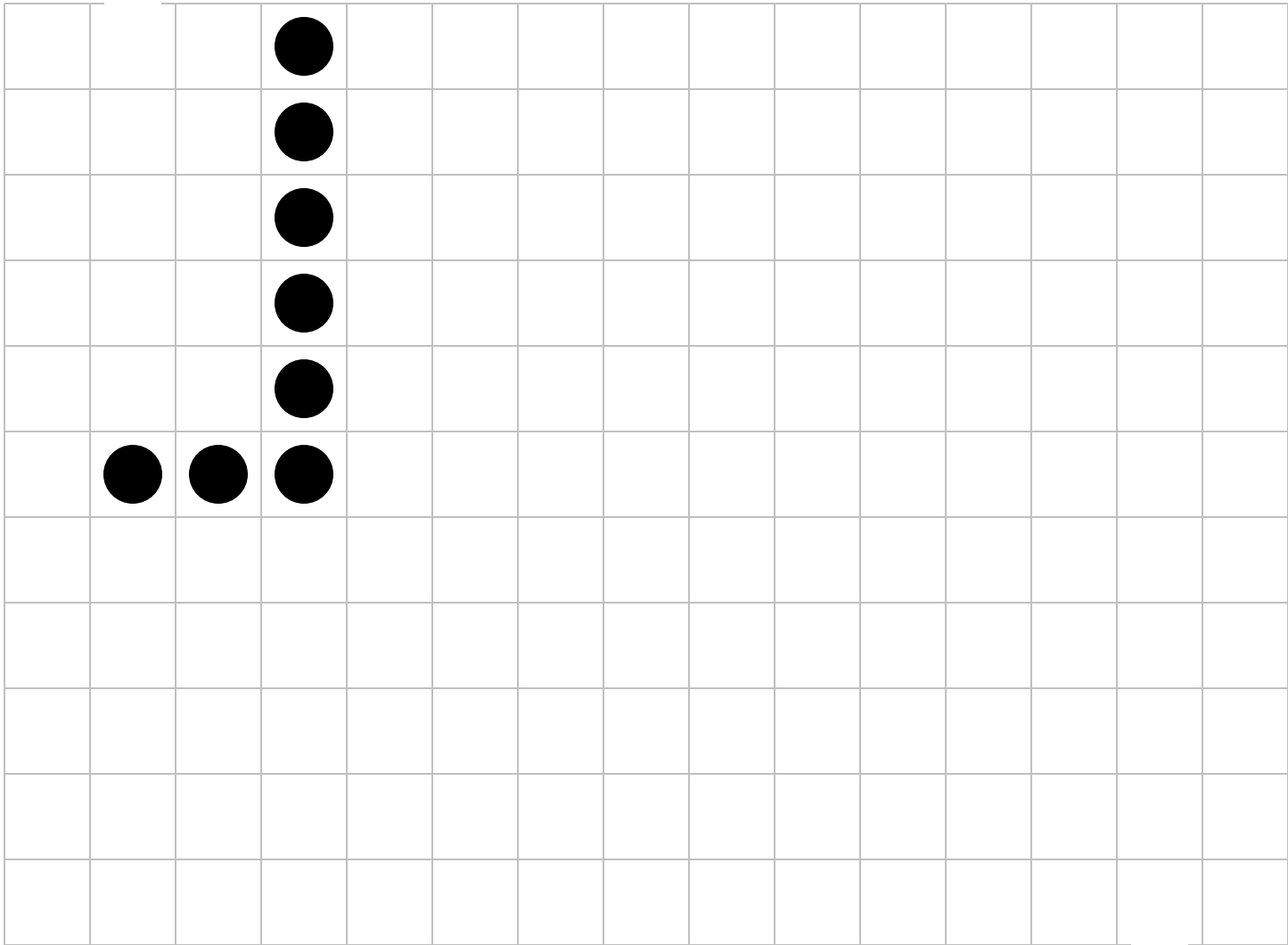


ENTRANCE



EXIT

Exercise 3

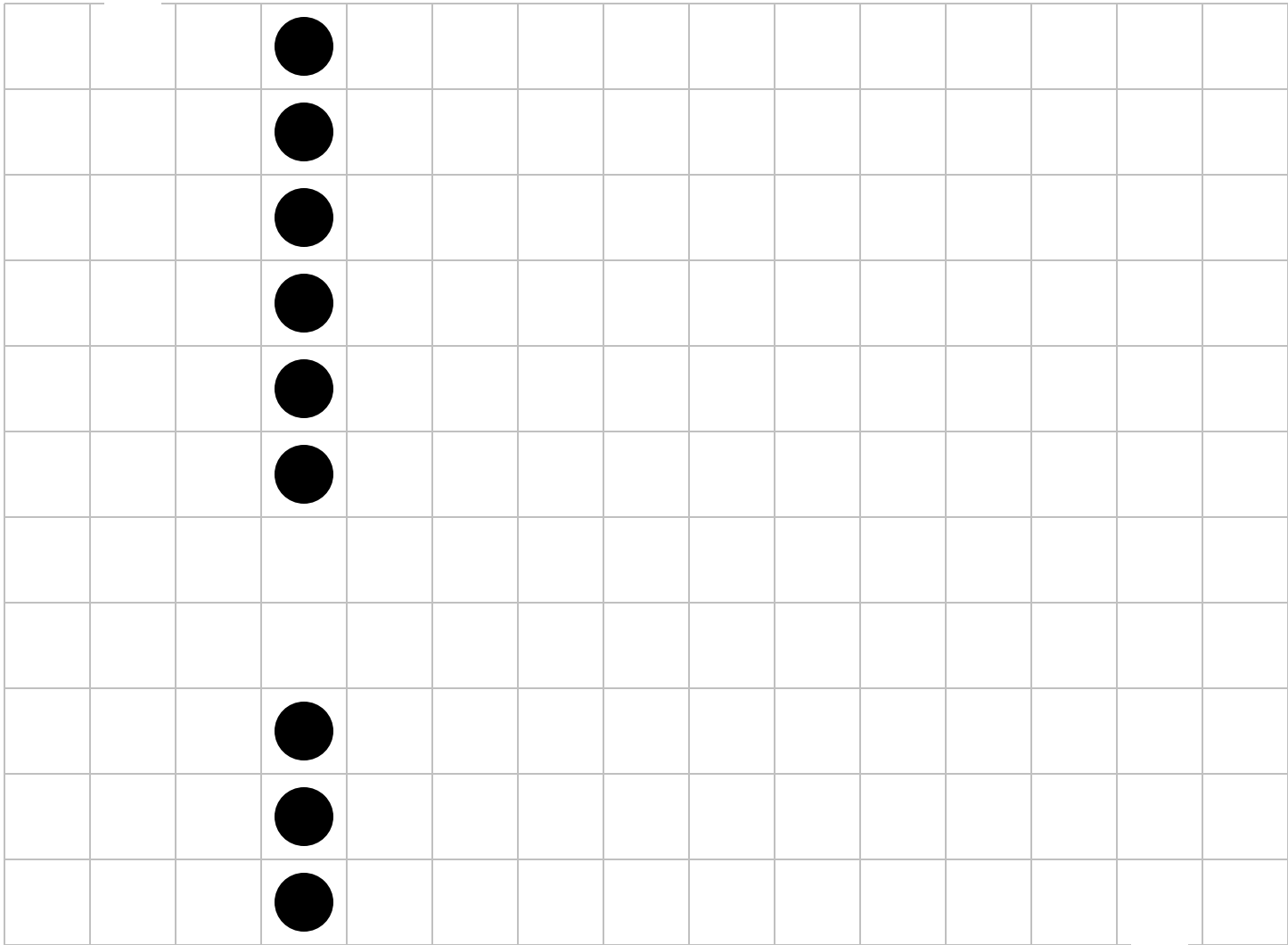


ENTRANCE



EXIT

Exercise 4



ENTRANCE





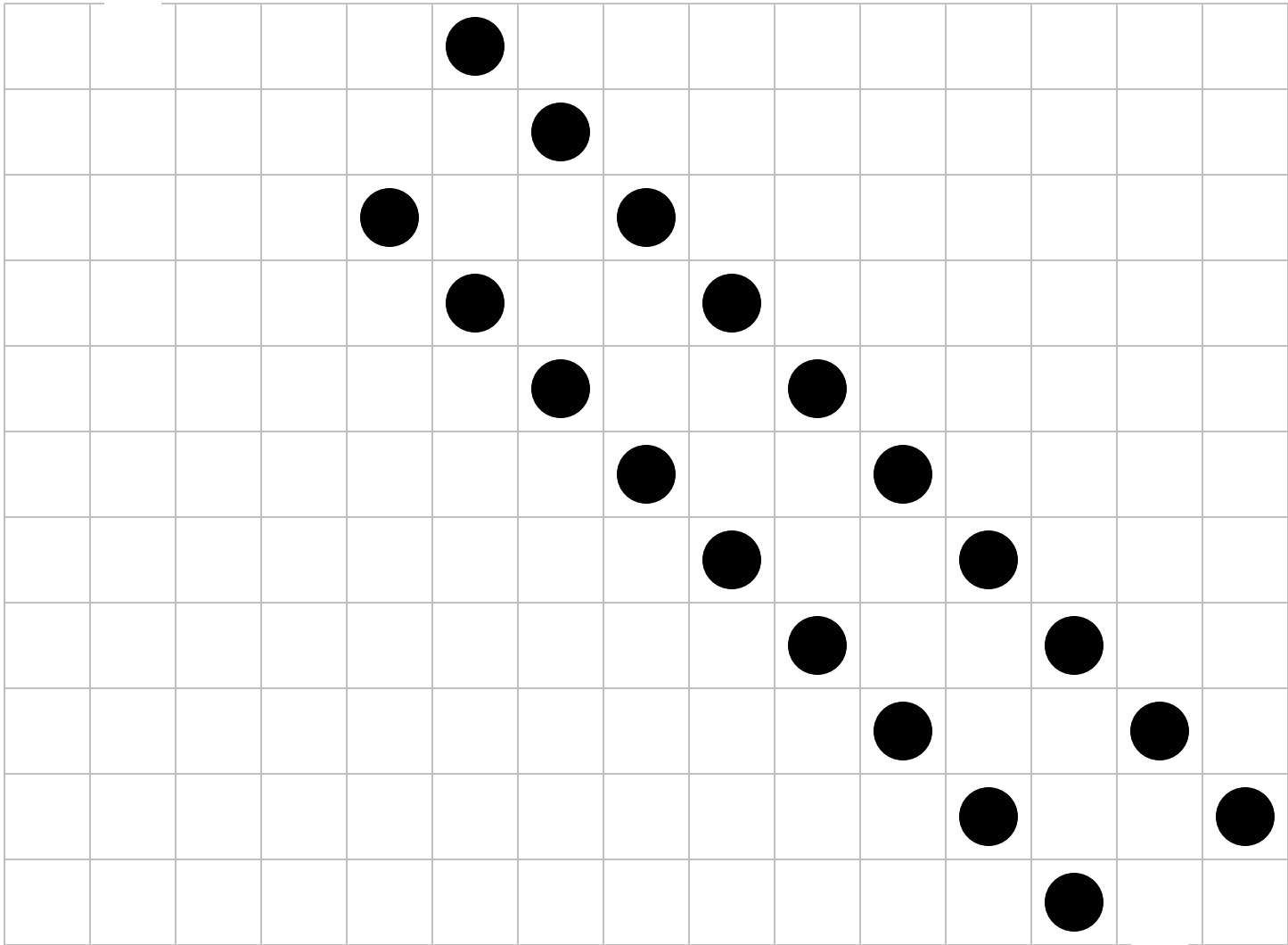
ICAROS I

NEW INSTRUCTION

- TAKE - Take a price

EXIT

Exercise 5


























ENTRANCE



EXIT

Exercise 6

























														
														
														
														
														
														
														
														
														
														
														

ENTRANCE



EXIT

Exercise 7













														
														
														
														
														
														
														
														
														
														
														

ENTRANCE



EXIT

Exercise 8

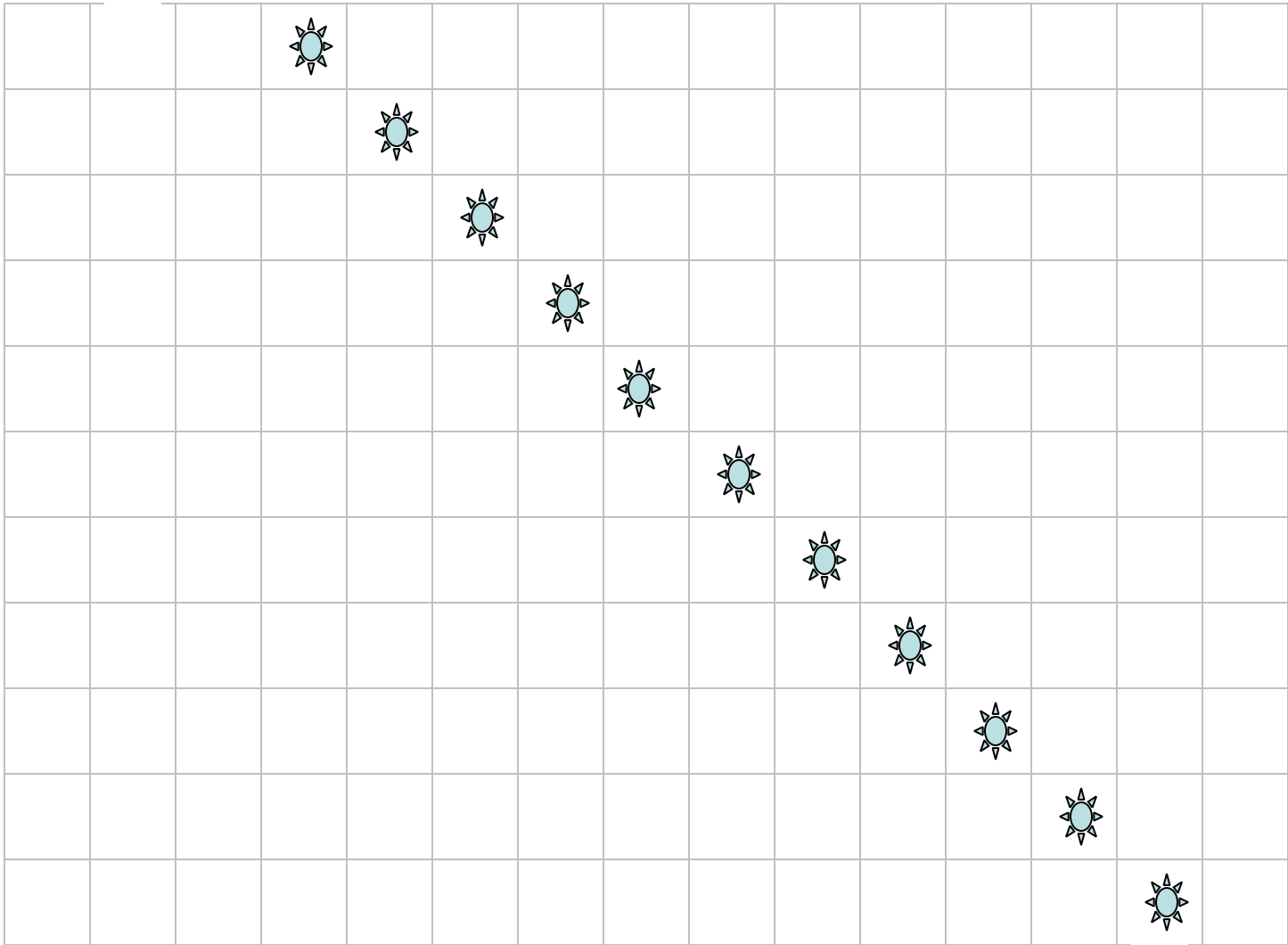
														
														
														
														
														
														

ENTRANCE



EXIT

Exercise 9

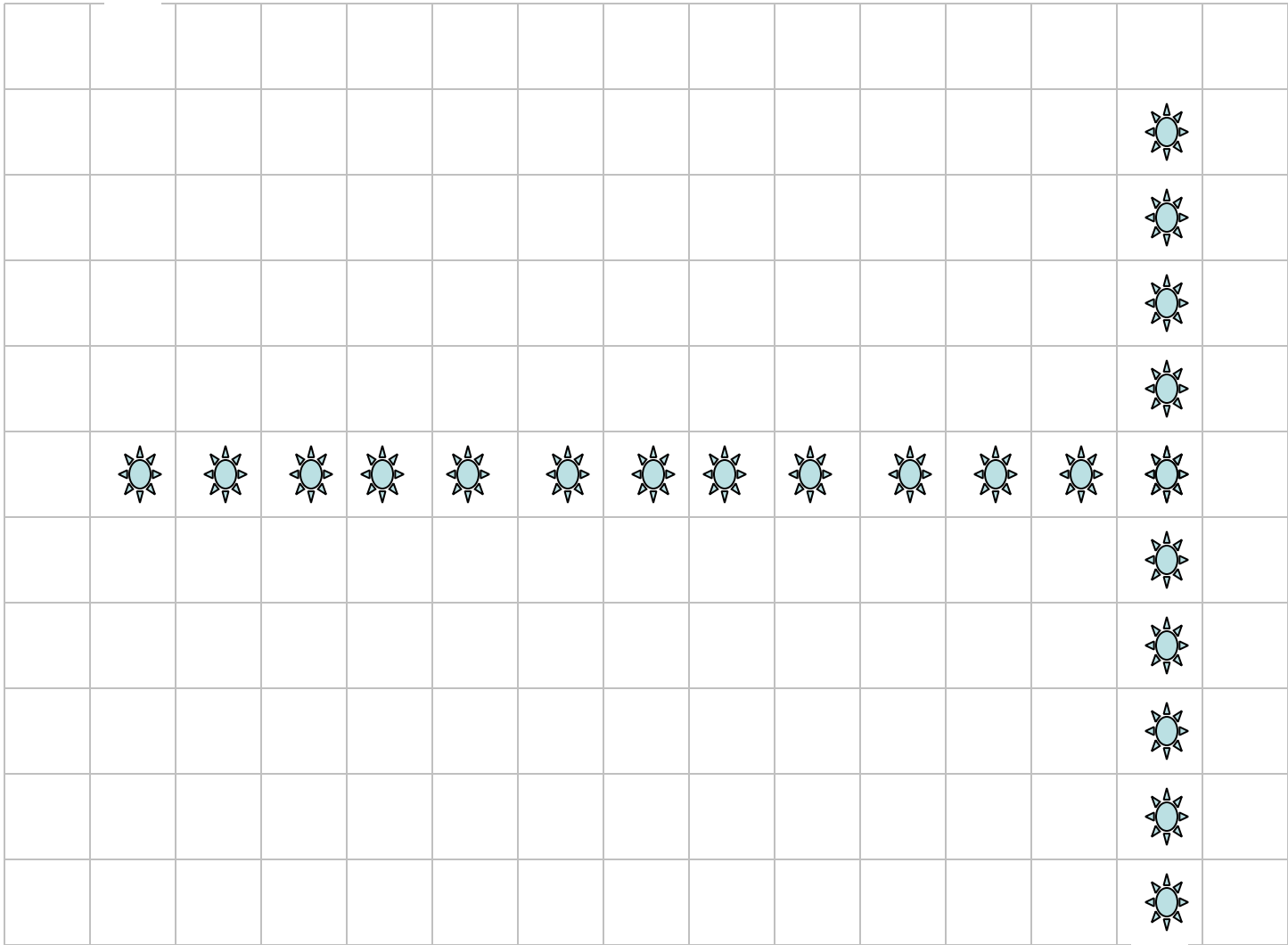


ENTRANCE



EXIT

Exercise 10

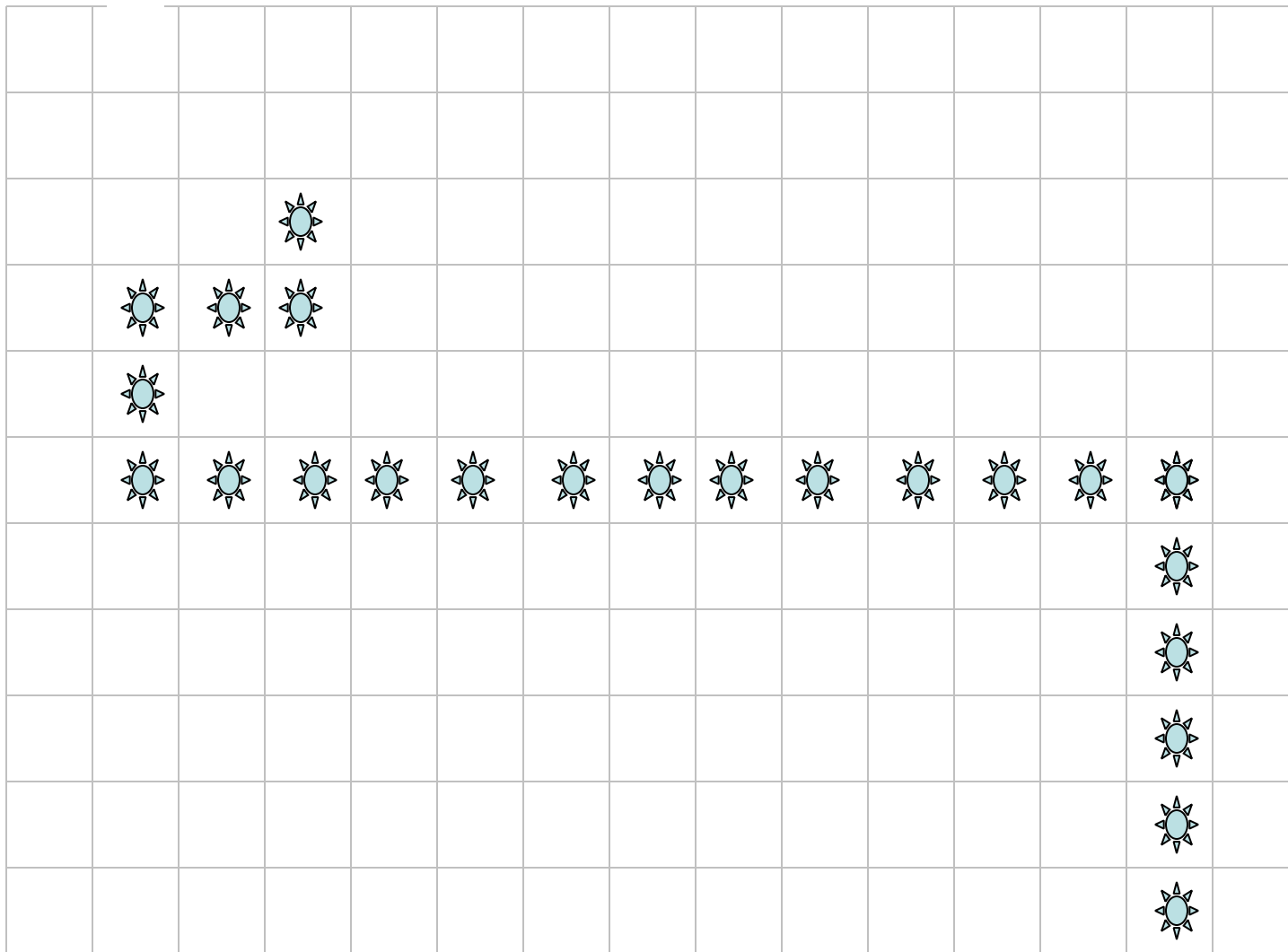


ENTRANCE



EXIT

Exercise 11
















































































ENTRANCE



EXIT

Exercise 12











































														
														
														
														
														
														
														
														
														
														
														

ENTRANCE



EXIT

Exercise 13

ENTRANCE





ICAROS II

NEW INSTRUCTION SET

- VAR = VALUE
- VAR++
- VAR -
- PRINT VAR

Print X - displays in the remote the number X.



ICAROS II

EXAMPLES

- STEPS = 0
- STEPS ++
- STEPS ++
- PRINT STEPS

The former code will display 2 in the remote.



ICAROS II

NEW INSTRUCTION SET

```
IF PRICE THEN  
  X  
END IF
```

Ask if in the **current** square there is a price.



ICAROS II

NEW INSTRUCTION SET

```
IF PRICE NEXT THEN  
  X  
END IF
```

Ask if in the **next** square there is a price.



ICAROS II

NEW INSTRUCTION SET

```
IF BLOCK THEN  
  X  
END IF
```

Ask if in the **next** square there is something that will block the drone.

EXIT

Exercise 14



ENTRANCE

Objective: Show in the remote the number of squares passed/overflown.



EXIT

Exercise 15



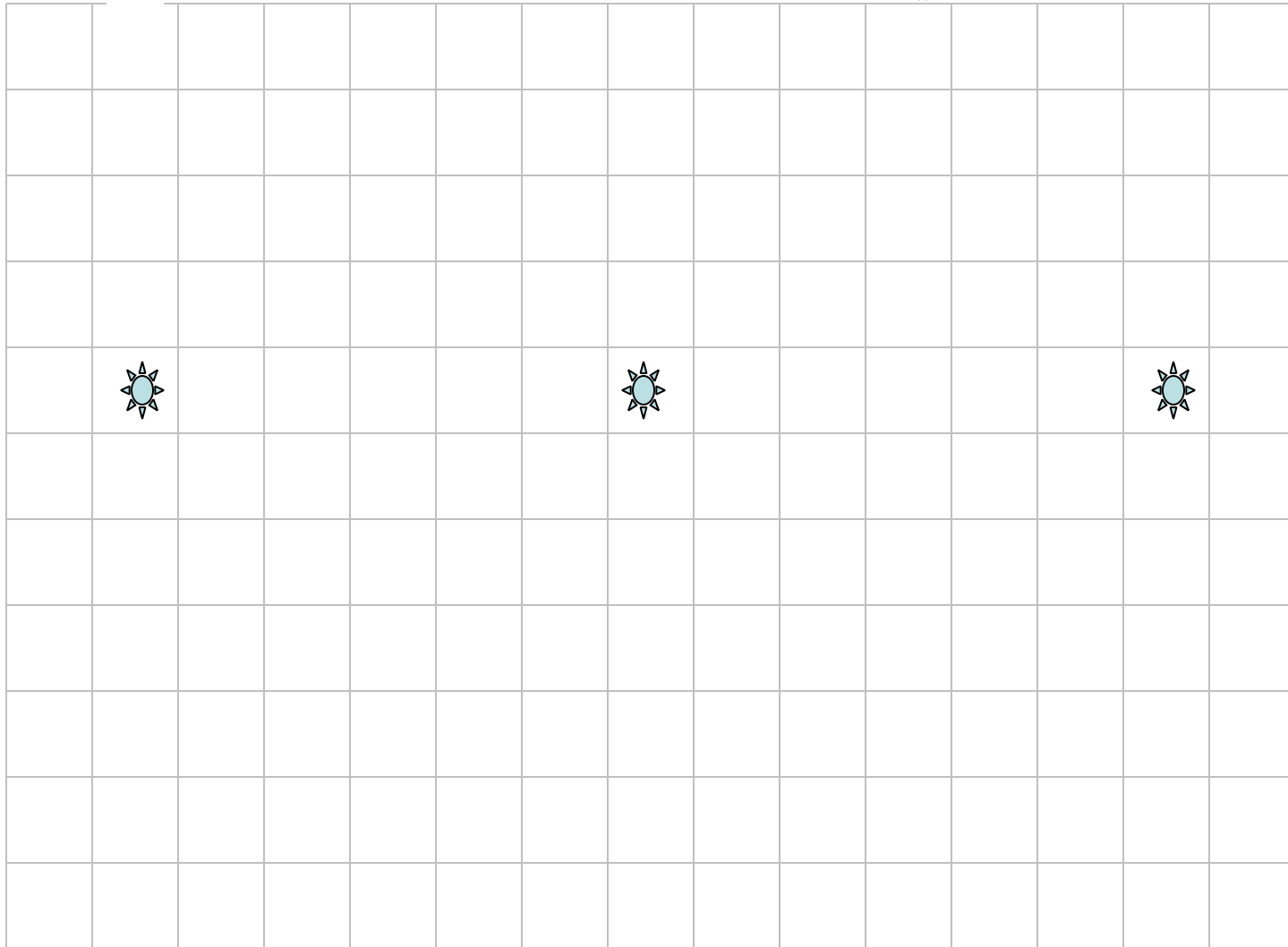
ENTRANCE

Objective: Show in the remote the number of squares passed/overflown.



EXIT

Exercise 16



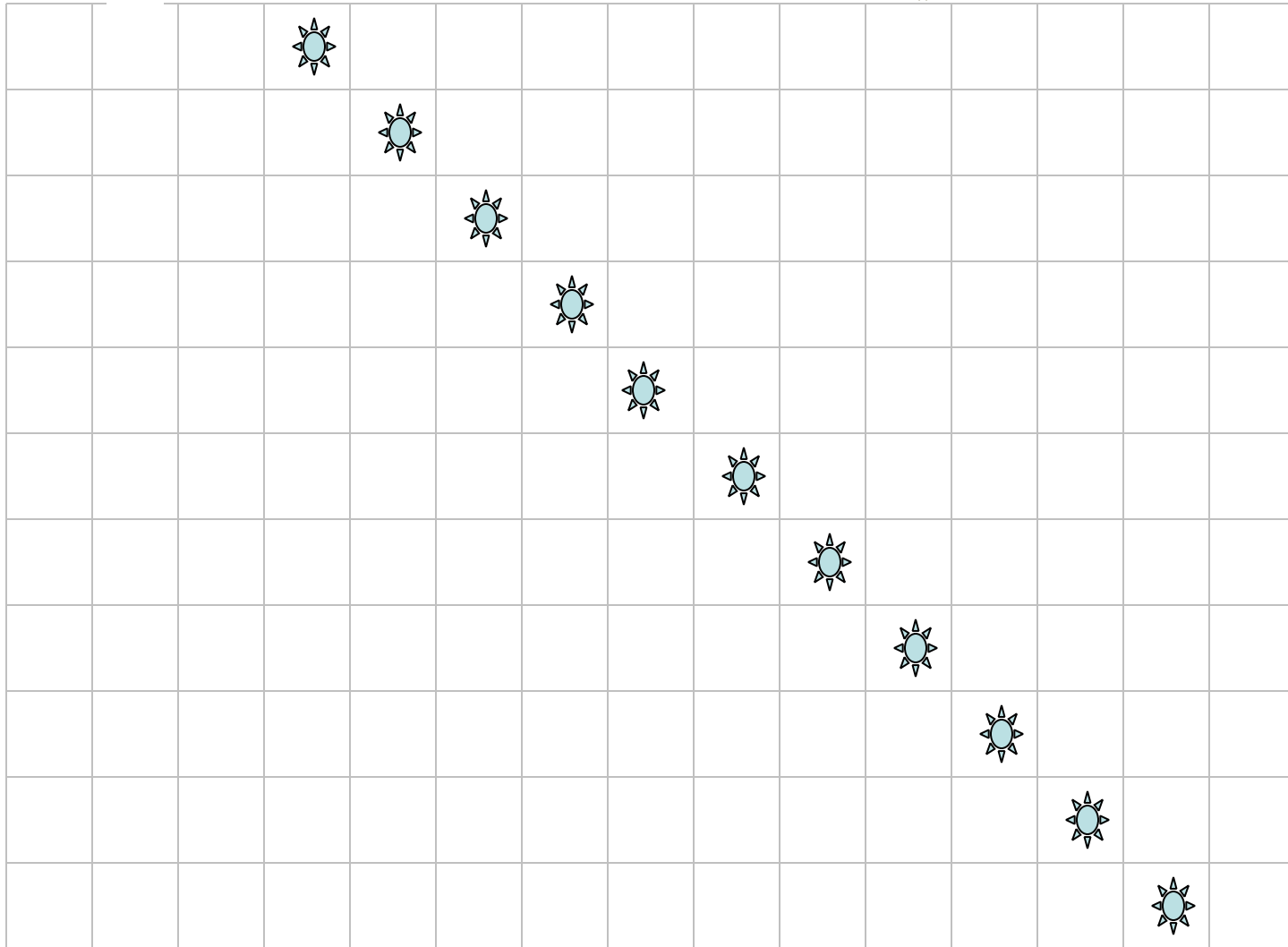
ENTRANCE

Objective: Show in the remote the number of squares passed/overflown.



EXIT

Exercise 17



Objective: Show in the remote the number of squares passed/overflowed and the number of prices taken.

ENTRANCE



EXIT

Exercise 18



Objective: Show in the remote the number of prices taken.

ENTRANCE



EXIT

Exercise 19



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Objective: Show in the remote the number of prices taken.

ENTRANCE



EXIT

Exercise 20



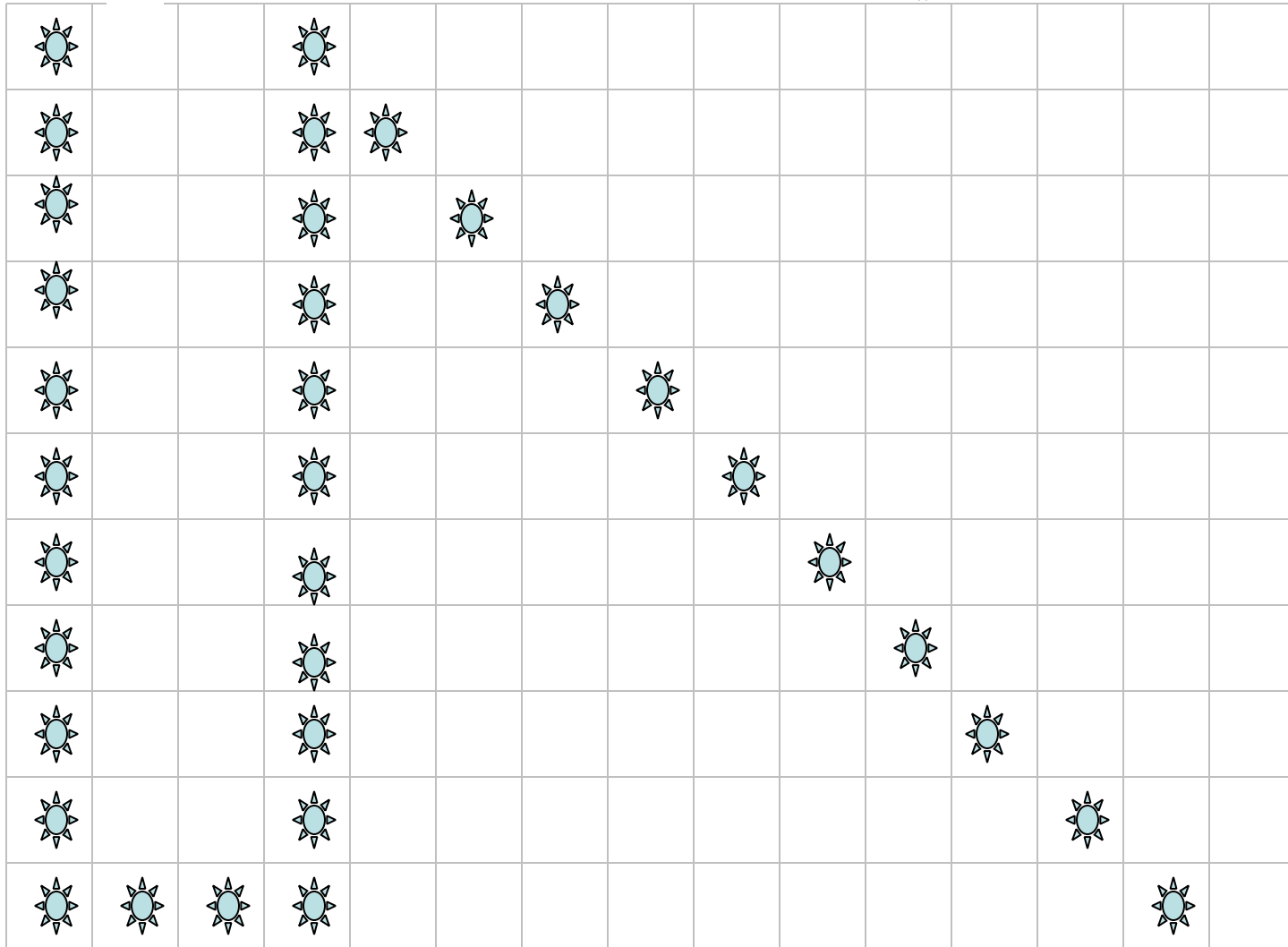
Objective: Show in the remote the number of prices taken.

ENTRANCE



EXIT

Exercise 21



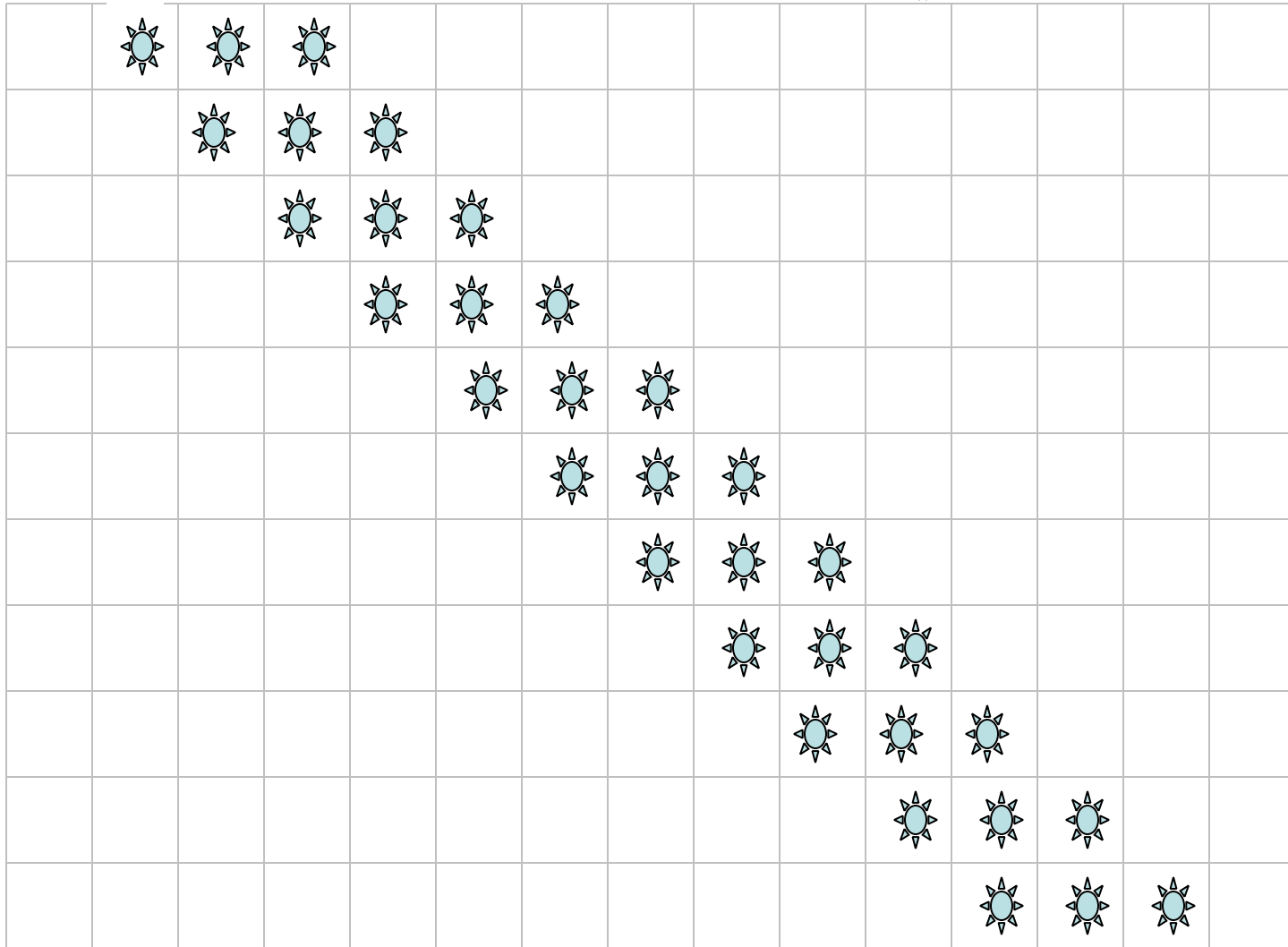
Objective: Show in the remote the number of prices taken.

ENTRANCE



EXIT

Exercise 22



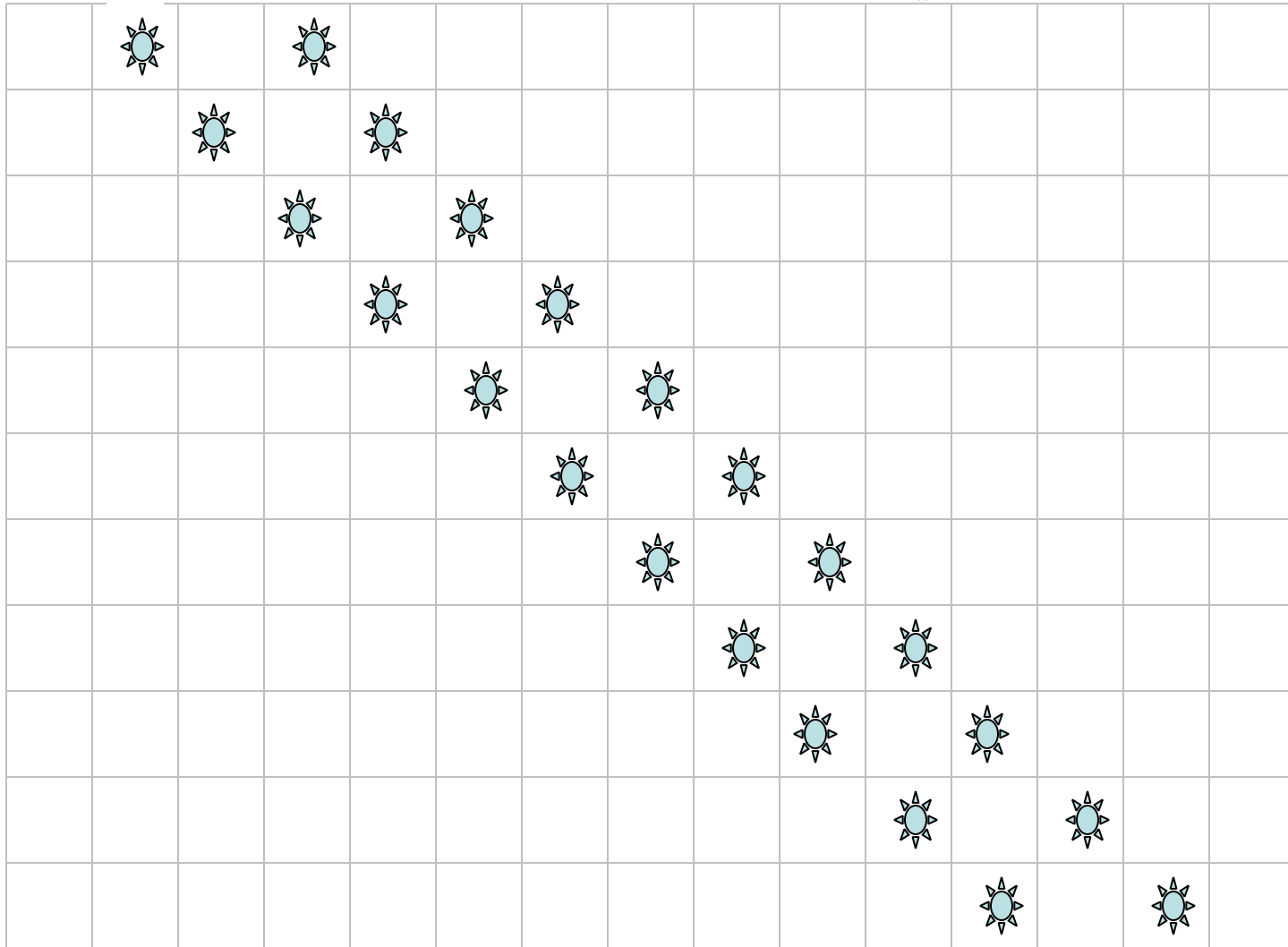
Objective: Show in the remote the number of prices taken.

ENTRANCE



EXIT

Exercise 23

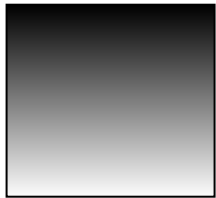


Objective: Show in the remote the number of prices taken.

ENTRANCE



ICAROS has problemas!!!



In this square could be a price or an obstacle. ICAROS has to ask in advance.

**REMEMBER THIS COMMANDS
IF PRICE NEXT THEN..... END IF
IF BLOCK THEN END IF**

EXIT

Exercise 24



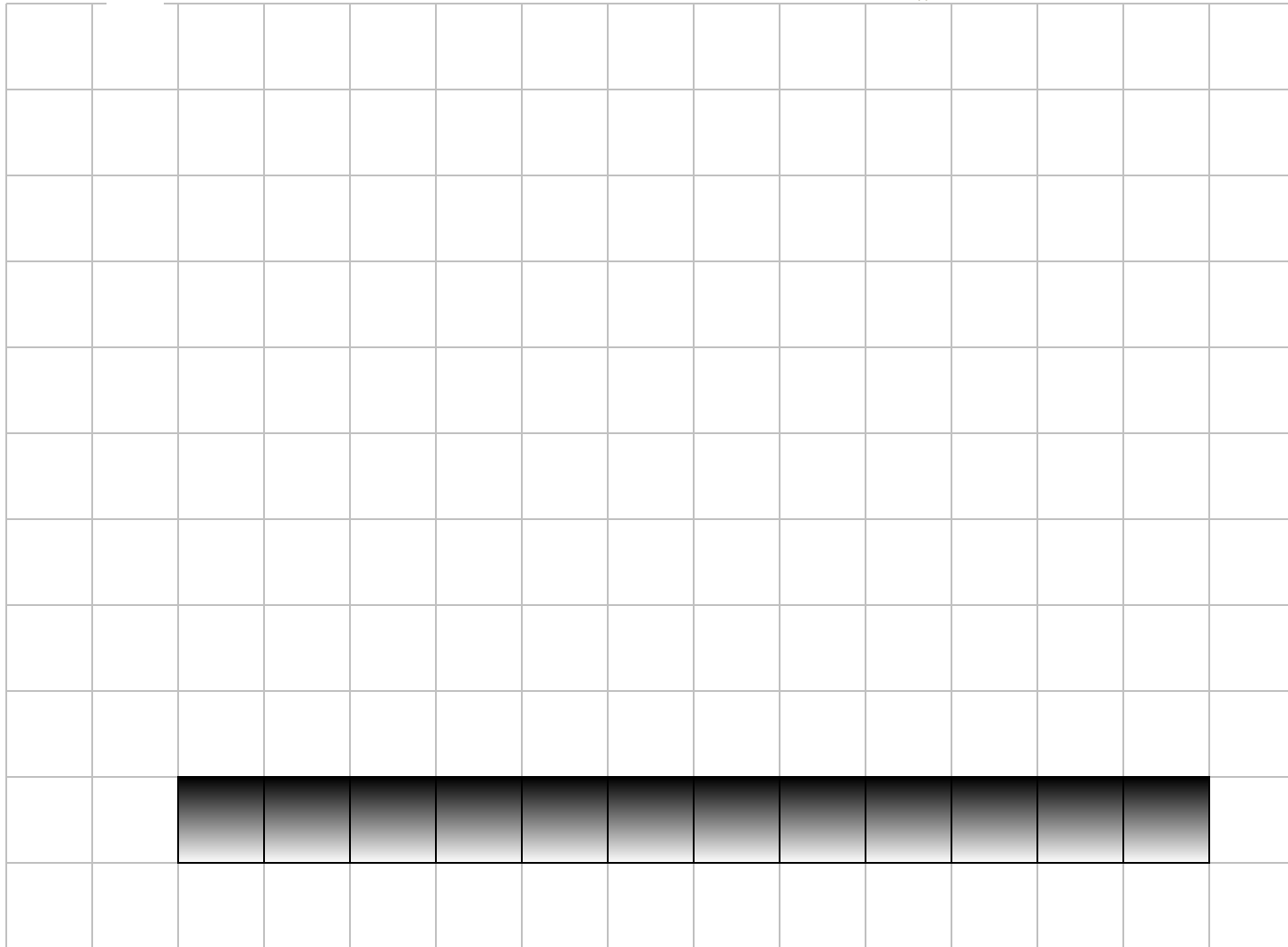
ENTRANCE

Objective: show in the remote how many squares and passed and prices has the drone taken.



EXIT

Exercise 25



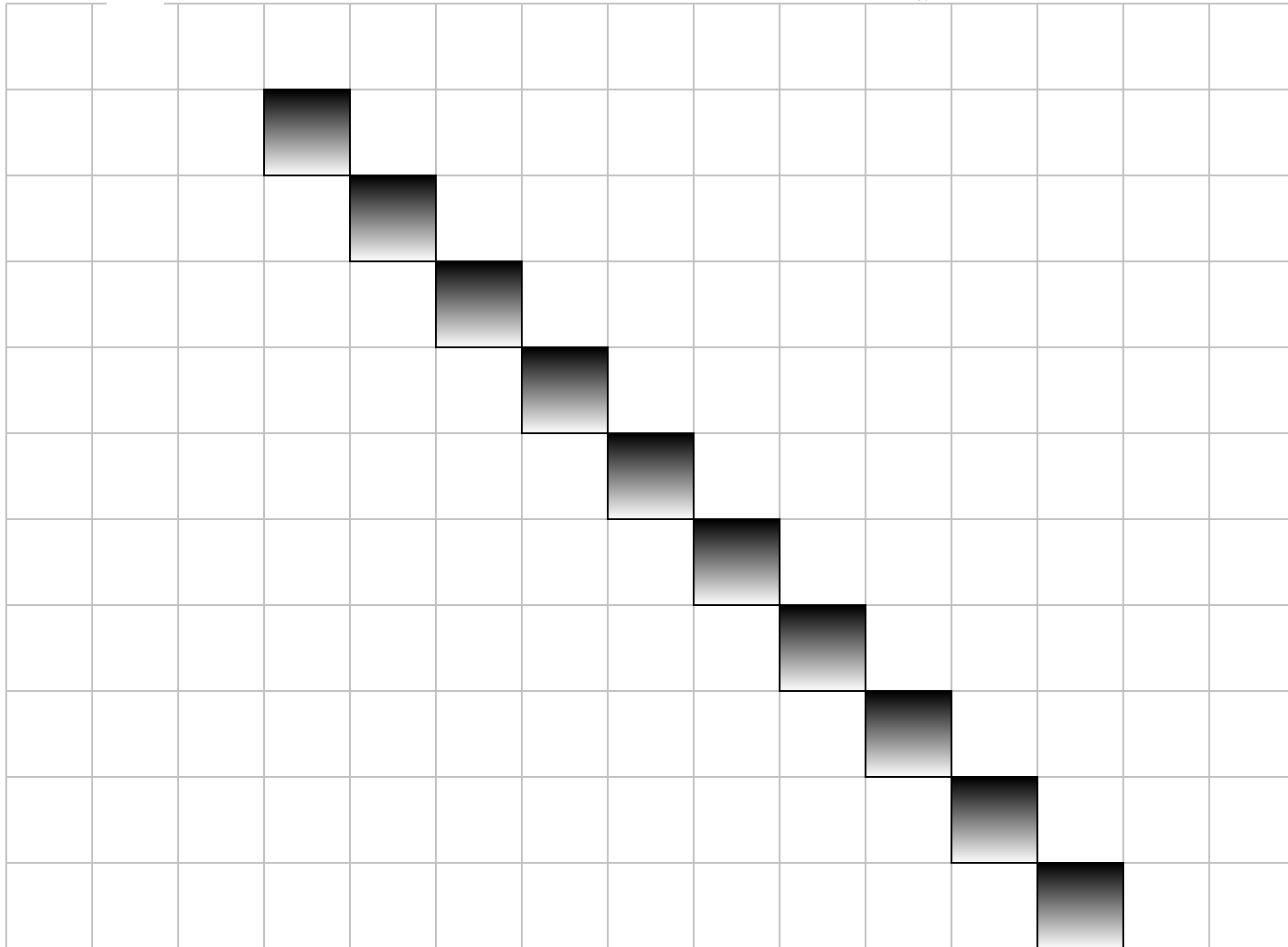
ENTRANCE

Objective: show in the remote how many squares and passed and prices has the drone taken.



EXIT

Exercise 26



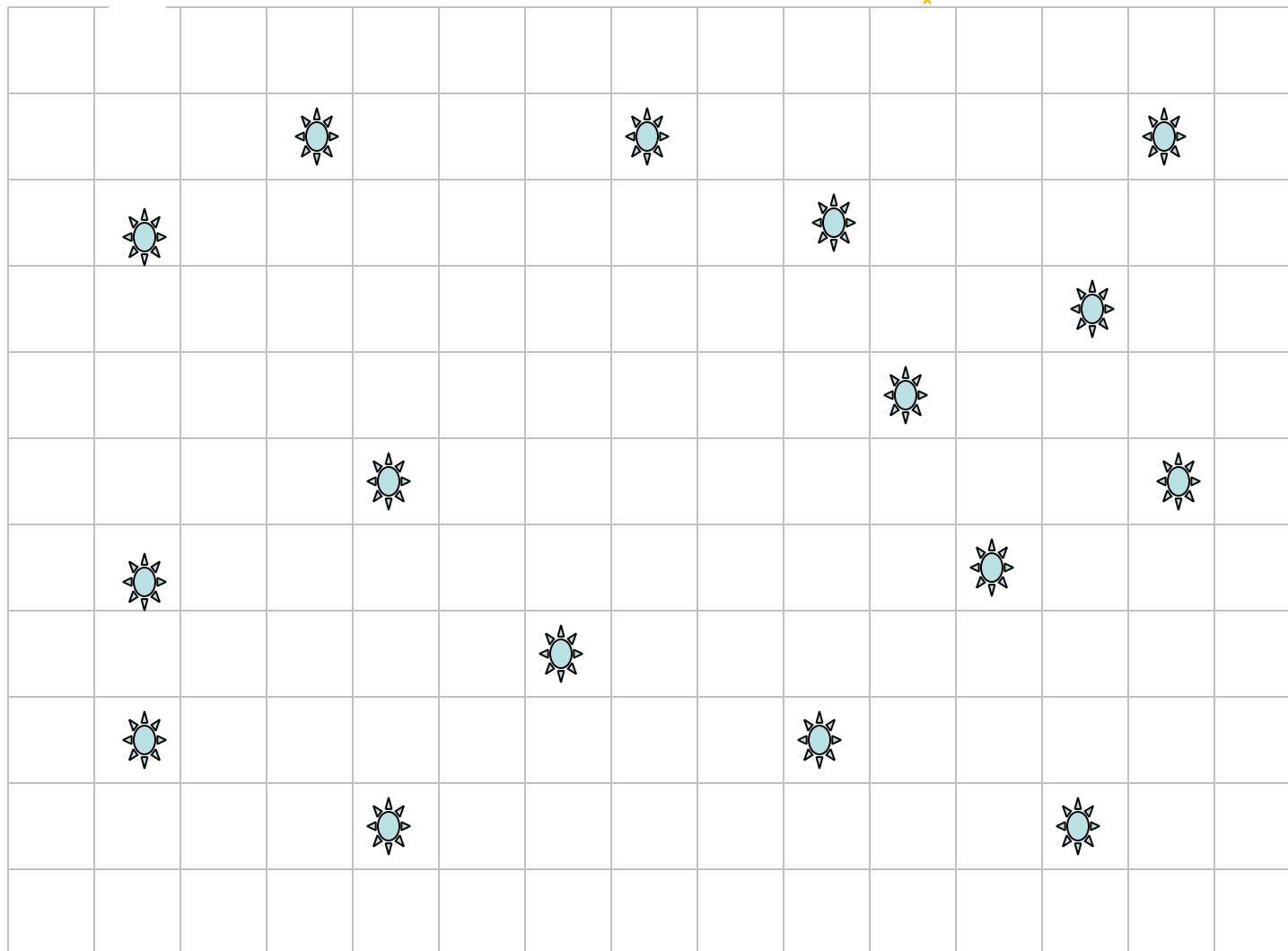
ENTRANCE

Objective: show in the remote how many squares and passed and prices has the drone taken.



EXIT

Exercise 27

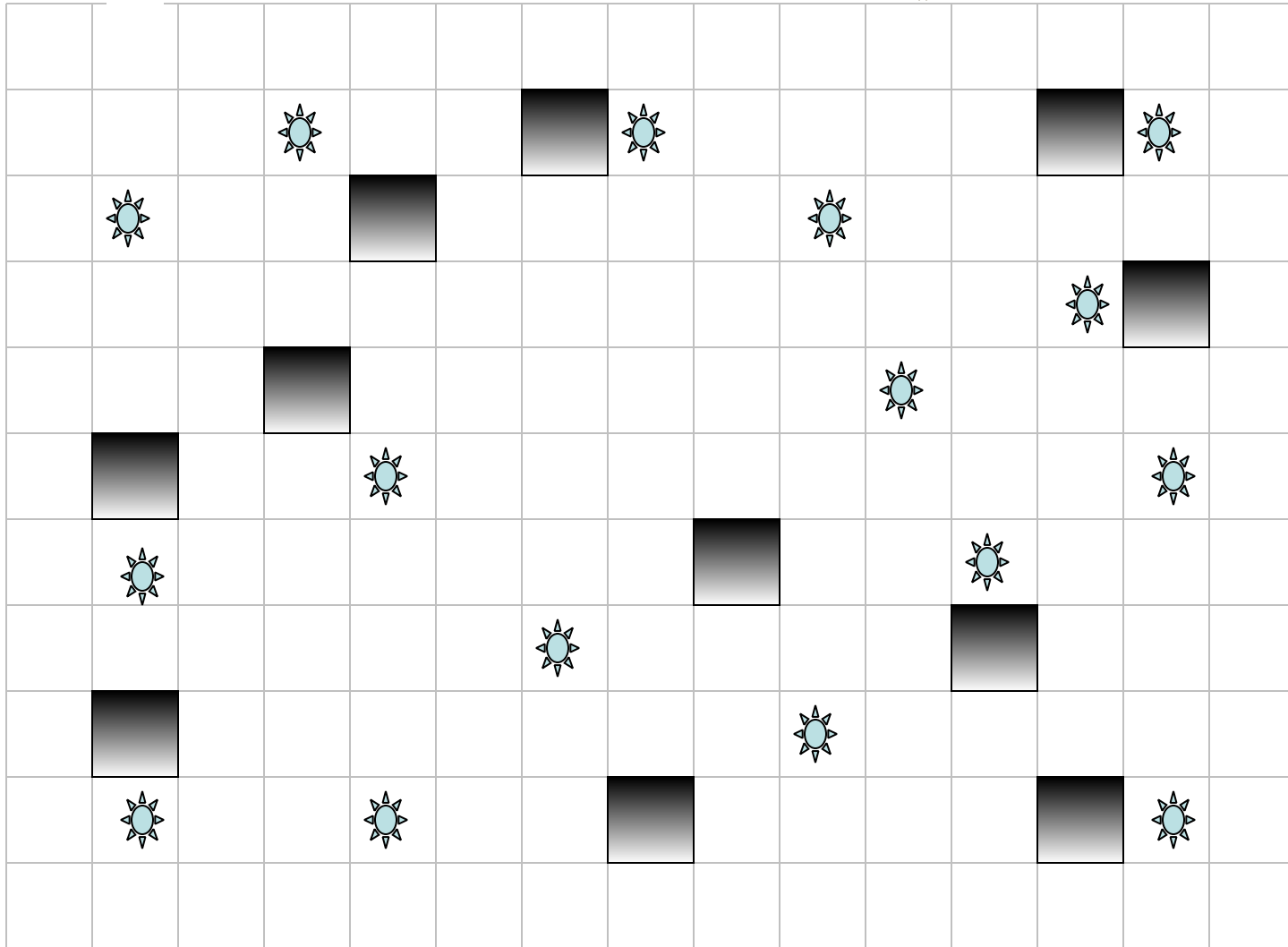


ENTRANCE



EXIT

Exercise 28

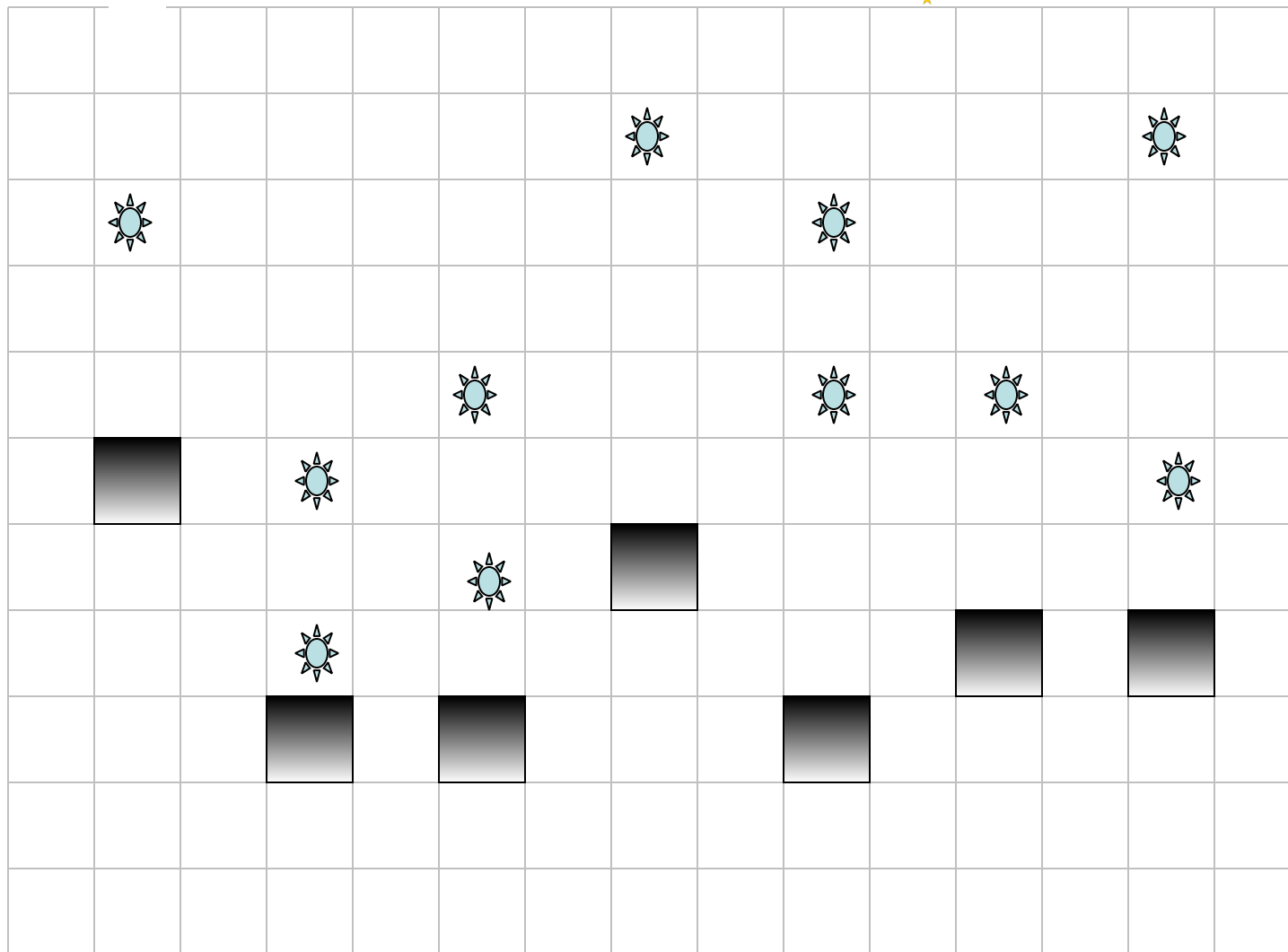


ENTRANCE

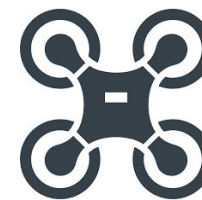


EXIT

Exercise 29

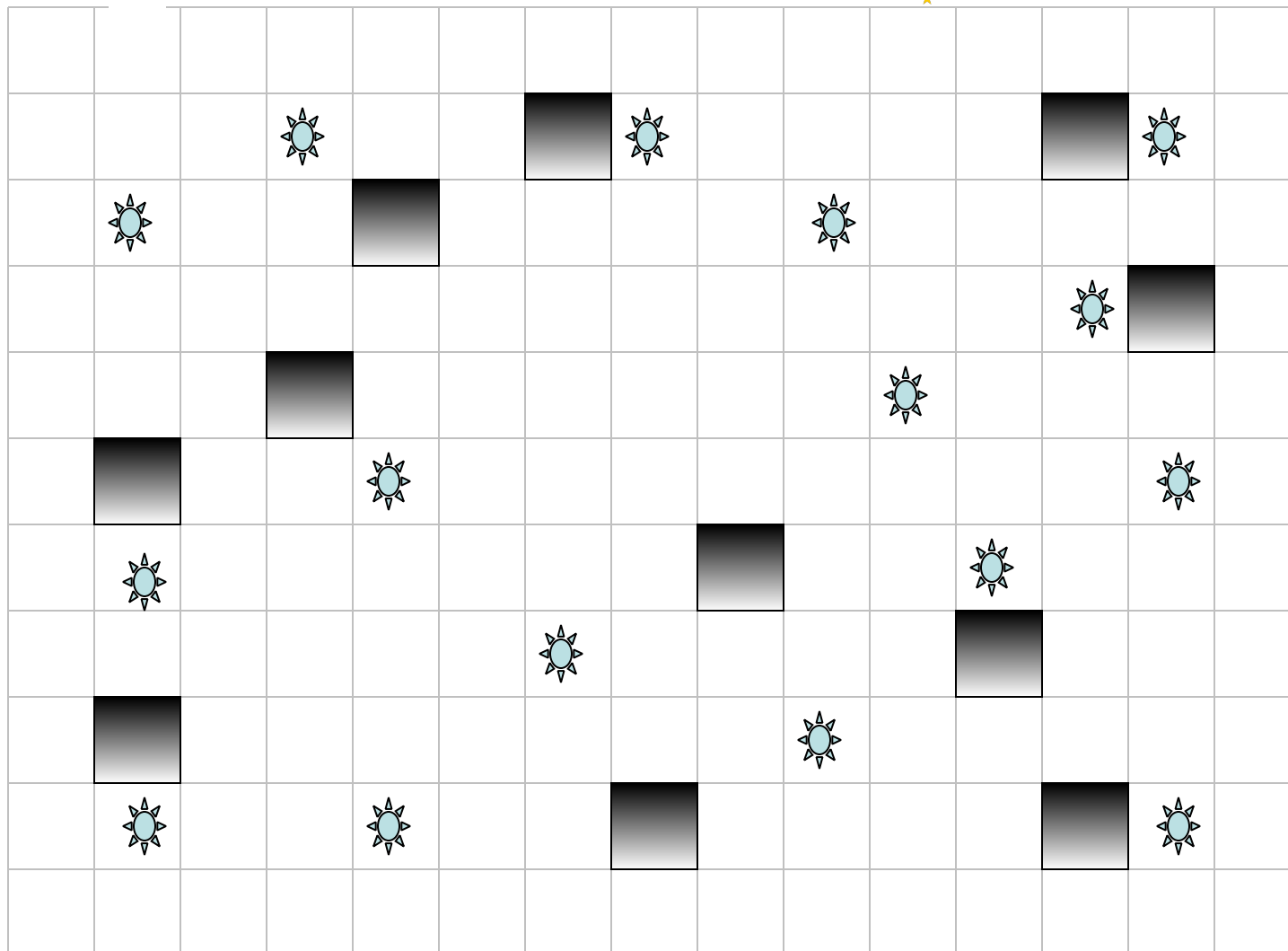


ENTRANCE



EXIT

Exercise 30



ENTRANCE

