# Battle ships - game

You must write the game as a console application in the language requested. Comment your code and add Javadoc comments as necessary. If you are familiar with unit testing you should write unit tests.

You are expected to make your code elegant / beautiful and the best you can do. It’s not sufficient that it works please also ensure good separation of logic.

### The Problem

Implement a very simple game of battle ships.

You should create a simple console application to allow two human players to play with each other.

The program should create a 10x10 grid, and place a number of ships on the grid at random with the following sizes:

* 1 x Battleship (5 squares)
* 2 x Destroyers (4 squares)

Ships can touch but they must not overlap.

The console application should accept input from the user in the format “A5” to signify a square to target, and feedback to the user whether the shot was success, and additionally report on the sinking of any vessels.

. = no shot

- = miss

X = hit

Example output:

Miss

1234567890

A -.........

B ..........

C ..........

D ..........

E ..........

F ..........

G ..........

H ..........

I ..........

J ..........

Enter coordinates (row, col), e.g. A5 =

You should implement a **show** command to aid debugging and backdoor cheat. Example output after entering **show**

1234567890

A X

B X

C X X

D X X

E X X

F X

G

H

I XXXX

J

Enter coordinates (row, col), e.g. A5 =

Please report the number of shots taken once game complete, e.g.

Sunk

1234567890

A ......X...

B ......X...

C ..X...X...

D ..X...X...

E ..X...X...

F ..X.......

G ..........

H ..........

I .....-XXXX

J ..........

Well done! You completed the game in 14 shots

Please email your finished solution zipped up or send link to github.