julianhernandez 👤

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⭕ Shark

Language/Type: ☕ Java [classes](#) [constructors](#) [Critters](#) [fields](#) [inheritance](#) [instance methods](#)
Related Links: [Critter.java](#)
Author: Jason Ganzhorn

("Critter" classes come from the University of Washington's CSE 142 Critters homework assignment. See the [assignment spec](#) for more information.)

Write a class `Shark` that extends the `Critter` class from the Critters assignment. `Shark` objects should alternate between moving to the north and south as follows: first move 1 step north, then 2 steps south, then 3 steps north, then 4 steps south, then 5 steps north, then 6 steps south, and so on, each time moving one farther than previously.

You may add anything needed (fields, other methods, constructors, etc.) to implement this behavior appropriately.

Type your solution here:

```java
public class Shark extends Critter {
    public int moves = 1;
    public int inDir = 1;

    public Direction getMove() {
        Direction dir = Direction.CENTER;
        if (this.moves >= inDir) {
            if (this.inDir % 2 == 1) {
                dir = Direction.NORTH;
            }
            if (this.inDir % 2 == 0) {
                dir = Direction.SOUTH;
            }
            this.inDir++;
            this.moves = 1;
        } else {
            if (this.inDir % 2 == 1) {
                dir = Direction.NORTH;
            }
            if (this.inDir % 2 == 0) {
```

```
21              dir = Direction.SOUTH;
22            }
23            this.moves++;
24        }
25
26        return dir;
27    }
28 }
```

This is an **inheritance problem.** Write a Java class using inheritance. (You do not need to write any `import` statements.)

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test #1:	sharkMove
console output:	movement (1st shark): "NSSNNNSSSSNNNNNSSSSSSNNNNNNNSSSS movement (2nd shark): "NSSNNNSSSSNNNNNSSSSSSNNNNNNNSSSS
result:	⊘ pass

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