1. What is output by the following:
 	
``java
String a = "warm coat";
System.out.println(a.indexOf("k"));
``
	2. Write one line to print "ste" using String a and substring:
	
	``java
	String a = "hamster farm";
	``

3. What is output by the following:
 	
``java
String a = "apple pie";
System.out.println(a.substring(2,4));
``
	4. What is output by the following:
	
	``java
	String a = "go tigers";
	System.out.println(a.substring(4));
	``

5. Given this code, write code to print the middle three letters of temp (assume temp has an odd number of letters):
 	
``java
Scanner scan = new Scanner(System.in);
String temp = scan.nextLine();
``
	6. What is output by the following:
	
	``java
	String a = "apple pie is good";
	for(int i = 0; i<a.length(); i+=3)
	    System.out.print(a.substring(i,i+1));
	``

7. Write code to store a random integer from 5 to 13 inclusive in a variable named **temp**:	8. Write a while loop that prints the values 0 through 5:

9. Write code to print the last character of String **passcode**. Assume the String contains one or more characters.

```java
Scanner scan = new Scanner(System.in);
String passcode = scan.nextLine();
```

10. I'm trying to make a Frog array with 1000 Frog objects and then hop each Frog 1 space. I have this code so far below, but it crashes saying "NullPointerException". What is wrong and how would you fix it? (say in words to the right)
 	
``java
Frog[] pond = new Frog[1000];
for(int a = 0; a<pond.length; a++){
   pond[a].hop();
}
``	

11. Assume String array **names** is properly initialized with valid Strings. Write code that checks for duplicates and prints "yes" once if one or more dups were found and "no" once if no dups were found. This is not a method, so you will not be using a return call. Assume the data is not sorted.

```
String[] names = { //initialized with valide data in code you cannot see;
```

12. The following code always produces 0.0 as the output instead of reporting the percentage of entries that match the given criteria. What is wrong and how would you fix it? Say in one or more sentences.

```
int[] nums = { //initialized with valid data in code you cannot see };
int count = 0;
for(int n: nums){
   if(n>34) count++;
}
System.out.println(count/nums.length);
```

13. Write the Airplane class. An Airplane object has two attributes: the number of miles it has flown, and a unique serial number. A new Airplane starts at zero miles flown. The fly(int n) method flies the Airplane n miles. The getMiles() method returns how many miles the Airplane has flown. The first Airplane created has a serial number of 100, and each new Airplane goes up by 5. Write the complete Airplane class below.