

Write an application that uses repetition and conditional structures to print the song “The Twelve Days of Christmas” The complete lyrics of the song are shown below along with a screen-grab of what the final version of the application might look like.

The Twelve Days of Christmas

On the 1st day of Christmas,
my true love sent to me
A partridge in a pear tree.

On the 2nd day of Christmas,
my true love sent to me
Two turtle doves,
And a partridge in a pear tree.

On the 3rd day of Christmas,
my true love sent to me
Three French hens,
Two turtle doves,
And a partridge in a pear tree.

On the 4th day of Christmas,
my true love sent to me
Four calling birds,
Three French hens,
Two turtle doves,
And a partridge in a pear tree.

On the 5th day of Christmas,
my true love sent to me
Five golden rings,
Four calling birds,
Three French hens,
Two turtle doves,
And a partridge in a pear tree.

On the 6th day of Christmas,
my true love sent to me
Six geese a-laying,
Five golden rings,
Four calling birds,
Three French hens,
Two turtle doves,
And a partridge in a pear tree.

On the 7th day of Christmas,
my true love sent to me
Seven swans a-swimming,
Six geese a-laying,

Five golden rings,
Four calling birds,
Three French hens,
Two turtle doves,
And a partridge in a pear tree.

On the 8th day of Christmas,
my true love sent to me
Eight maids a-milking,
Seven swans a-swimming,
Six geese a-laying,
Five golden rings,
Four calling birds,
Three French hens,
Two turtle doves,
And a partridge in a pear tree.

On the 9th day of Christmas,
my true love sent to me
Nine ladies dancing,
Eight maids a-milking,
Seven swans a-swimming,
Six geese a-laying,
Five golden rings,
Four calling birds,
Three French hens,
Two turtle doves,
And a partridge in a pear tree.

On the 10th day of Christmas,
my true love sent to me
Ten lords a-leaping,
Nine ladies dancing,
Eight maids a-milking,
Seven swans a-swimming,
Six geese a-laying,
Five golden rings,
Four calling birds,
Three French hens,
Two turtle doves,
And a partridge in a pear tree.

On the 11th day of Christmas,
my true love sent to me
Eleven pipers piping,
Ten lords a-leaping,
Nine ladies dancing,
Eight maids a-milking,
Seven swans a-swimming,
Six geese a-laying,

Five golden rings,
Four calling birds,
Three French hens,
Two turtle doves,
And a partridge in a pear tree.

On the 12th day of Christmas,
my true love sent to me
Twelve drummers drumming,
Eleven pipers piping,
Ten lords a-leaping,
Nine ladies dancing,
Eight maids a-milking,
Seven swans a-swimming,
Six geese a-laying,
Five golden rings,
Four calling birds,
Three French hens,
Two turtle doves,
And a partridge in a pear tree!

The output for the program is demonstrated on the next page.

```
Output - OOSource (run) ×
run:
On the 1st day of Christmas my true love gave to me:
A partridge in a pear tree,

On the 2nd day of Christmas my true love gave to me:
Two Turtle Doves and,
A partridge in a pear tree,

On the 3rd day of Christmas my true love gave to me:
Three French Hens,
Two Turtle Doves and,
A partridge in a pear tree,

On the 4th day of Christmas my true love gave to me:
Four Calling Birds,
Three French Hens,
Two Turtle Doves and,
A partridge in a pear tree,

On the 5th day of Christmas my true love gave to me:
Five Golden Rings,
Four Calling Birds,
Three French Hens,
Two Turtle Doves and,
A partridge in a pear tree,

On the 6th day of Christmas my true love gave to me:
Six Geese a-laying,
```

Note 1: Each line of the song should only appear once in your code.

Note 2: You are not permitted to use techniques like the following in your solution:

```

18 String line1 = "On the X day of Christmas, my true love sent to me";
19 String line2 = "A Partridge in a pear tree";
20 String line3 = "Two turtle doves";
21 String line4 = "Three French hens";
22 String line5 = "Four calling birds";
23 //etc...
24
25 System.out.println(line1 + "\n" + line2);
26 System.out.println("");
27 System.out.println(line1 + "\n" + line3 + " and\n" + line2);
28 System.out.println("");
29 System.out.println(line1 + "\n" + line3 + "\n" + line4 + " and\n" + line2);
30 //etc...

```

Note 3: You are only permitted to use techniques (programming constructs) which we have used in class – therefore you are not permitted to use arrays or methods in your solution.