

# CS 46A – SampleExam1

## Problem 1

Open project 1\_FixingError and fix all errors in the main() method of class PictureViewer, then submit it to Codecheck to pass the test.

### Requirements

- Do not add or remove any statements.
- Do not change the semantics of each statement.
- Do not add or remove any variables.
- Do not add or remove any objects.
- Magic numbers are allowed.
- You must use dw and dh when calling method grow().

[Codecheck URL for Problem 1](#)

## Problem 2

Open project 2\_Discount and follow the steps to complete the main() method of class DiscountPrice.

### Sample run #1

```
Enter the product name: iPhone XS Max
Enter the original price: 249.99
Enter the discount rate: 0.10
The discount price for "iPhone XS Max" is $224.99.
```

### Sample run #2

```
Enter the product name: iPad
Enter the original price: Apple
Invalid price: Apple.
Program terminated.
```

### Sample run #3

```
Enter the product name: iPad Pro
Enter the original price: 429.99
Enter the discount rate: 0
Discount rate must be positive: 0.0.
Program terminated.
```

[Codecheck URL for Problem 2](#)

### Problem 3

Open project 3\_Frog and follow the steps to complete class **Frog**.

You should create the stubs and submit it to Codecheck first, then write the constructor and methods one by one.

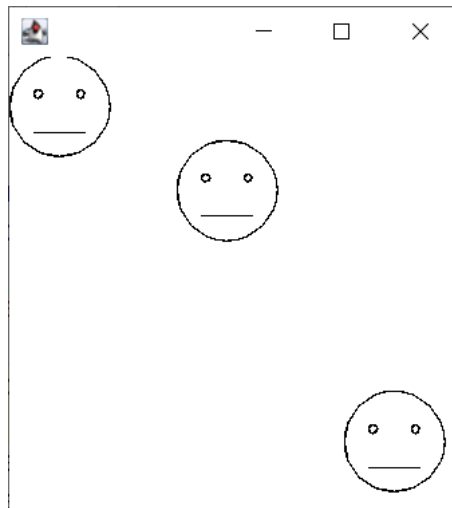
The frog weight is an integer.

Some constants are provided, and your program cannot have any magic number, even 1 or 0.

[Codecheck URL for Problem 3](#)

### Problem 4

Open project 4\_Face, import the graphics package, and follow the steps to complete class **Face**. The output of **FaceProg** is as follows.



You should use a piece of paper to figure out the location of each object before writing the code.

No magic numbers, except number 2 for this problem.

[Codecheck URL for Problem 4](#)