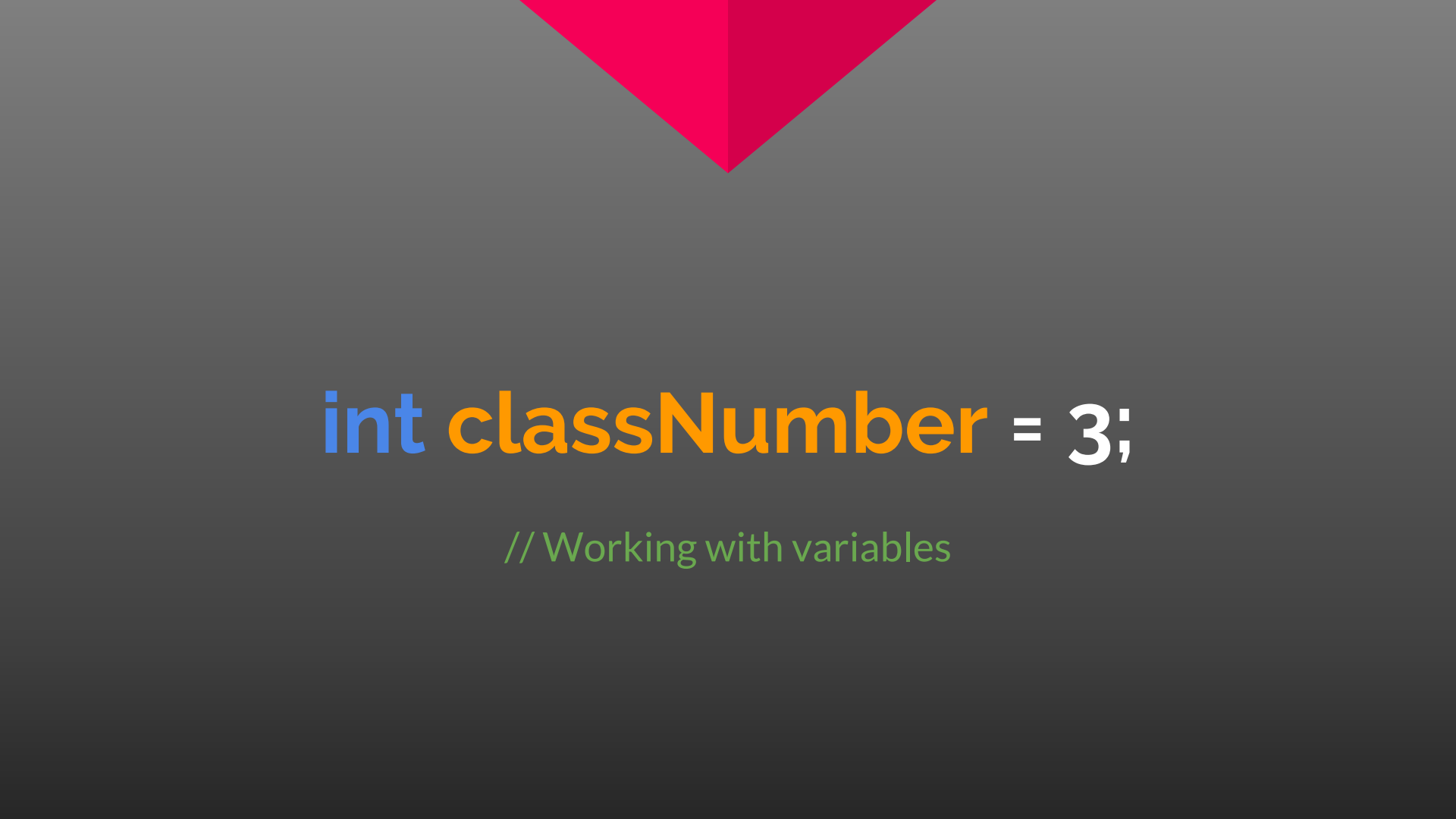
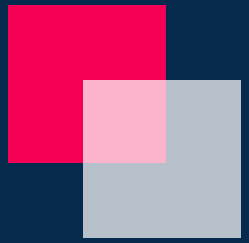

int classNumber = 3;
// Working with variables

What we have covered so far

- Let’s play a game!

- What is code?
  - Syntax
  - Keywords
- Making a new project
- Running your code
- Printing out text
  - “Strings”
- Commenting code
- Concatenation
- importing Libraries
- Interacting with the user
  - Run-time

- Different Types of Input
- A Little Variation



Something Quick

- To get text input from our user we used
  - `scanner.nextLine()`
- To get numbers as input, we use
  - `scanner.nextInt()`

- Try it out!
  - Make a program that asks a user for a number and *prints* it backs to them
  - This could be their age, or their height or whatever else

Remember this?

- This is how we used user input in the print statement
- Now what if I wanted get the user's input, then only use it after doing a bunch of stuff?

```
Scanner scanner = new Scanner(System.in);

System.out.println("Hi, "+scanner.nextLine());

scanner.close();
```

```
> Andrew

Hi, Andrew
```

```java
Scanner scanner = new Scanner(System.in);

// ???


// Do a bunch of stuff
System.out.println("Whole bunch of stuff");

// This is just here to scare you

byte[] scary = {0x61, 0x63, 0x49, 0x49};
System.out.println(new String(scary));

// Now print out their name
scanner.close();
```

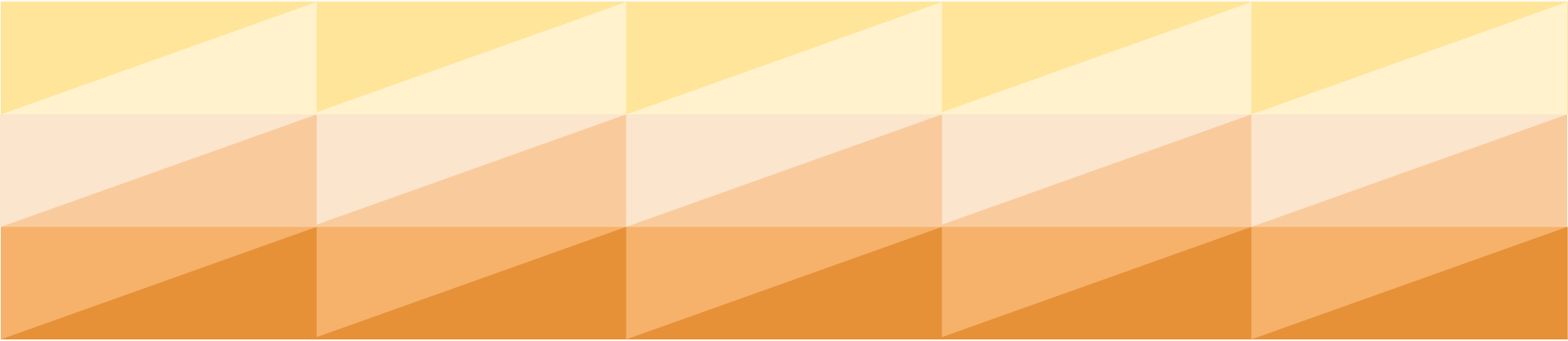
```
> Andrew

While bunch of stuff

Hi, Andrew
```

Variables

Temporary ‘Storage’ for Your Code



Types of Variable

- Variables come in many different shapes and sizes
- Different types of variables have different purposes
- The ones we'll be covering today are int, char, and String

int (eger)

- Have you talked about integers in math class?
- If you haven't here's a quick overview
  - An integer is a *whole number*
  - An integer cannot have any decimal or fractional parts
- -28, 0, 122, 9001 are all integers

Using Integers

- We represent a lot of the numbers we use in code using a type of variable called **int**
- For example, if we want our program to temporarily remember the number 42 and access it later on...

```
int someName = 42;

// Some stuff

System.out.println("I remembered "+someName);
```

```
I remembered 42
```

char (acter)

- Have you talked about alphabet in math class?
  - Probably not...
- If you haven't here's a quick overview
  - A letter is part of the alphabet
  - Just to throw you in a loop, a character can represent letters, punctuation... and numbers.
  - If it helps, you can think of a character as anything on your keyboard
- 1,2,3,4....Q,W,E,R,T,Y....!,@,#,$,%,^,?,>,],}

char var = ‘v’

Char uses single quotes surrounding the character.

Just like how string uses double quotes

char	String	int
‘1’	“1”	1

Using Characters

- Why doesn't the program output what we want?

```
char dollarSign = '$';
int dollarAmt = 120;

// Output the price
System.out.println("The price is:");
System.out.println( dollarSign + dollarAmt);
```

```
The price is
169
```

String

- A character array
- An easier way of using a bunch of characters together
- “This” is the same as ‘T’ + ‘h’ + ‘i’ + ‘s’