

The background is a vibrant yellow-orange gradient. In the upper left, there is a faint, stylized world map. Diagonally across the lower half, there are several rows of white binary code (0s and 1s).

# Midquarter Test Review

Do you have any questions about  
material from  
Unit1 and/or Unit 2?



Students, write your response!

Pear Deck Interactive Slide  
Do not remove this bar

# What prints?

```
public class Hmmm{  
    public static void main(String[ ] args) {  
        int num1 = 5;  
        int num2 = 7;  
        String label = "things";  
        System.out.println(num1 + num2 + label);  
        System.out.println(""+ num1 + num2 + label);  
    }  
}
```



Students choose an option

## Answer (D)

```
public class HmMMM{  
    public static void main(String[ ] args) {  
        int num1 = 5;  
        int num2 = 7;  
        String label = "things";  
        System.out.println(num1 + num2 + label);  
        System.out.println(""+ num1 + num2 + label);  
    }  
}
```

Console:  
12things  
57things

Rewrite the statement with as few parenthesis as possible without changing the value of the expression.

```
count += (((total/pages) - 5) * words - 1);
```



Students, write your response!

# Answer

```
count += (total/pages - 5) * words - 1;
```

A jar of jam weighs 1 lb. 5 oz. (One pound is 16 ounces). An empty shipping carton weighs 1 lb. 9 oz. and can hold up to 12 jars. The shipping costs include \$1.44 for each full or partial carton plus \$0.96 per pound or fraction of a pound plus a \$3.00 service charge.

Write the code that would calculate a double value `shippingCost` representing the shipping cost for `nJars` (a variable that holds the number of jars of jam).



Students, write your response!

# Answer

```
int nCartons = (nJars + 11)/12;  
int totalOunces = nCartons * 25 + nJars*21;  
int lbs = (totalOunces + 15) / 16;  
double shippingCost = 1.44*nCartons + 0.96*lbs + 3;
```



### PARTNER WORK!!!!

For the program below, type the output for each statement in the main method. You may want to draw a table on paper to keep track of the values stored in each variable. This problem is very difficult, be careful!

```
public class MysteryReturn {  
    public static void main(String[] args) {  
        int x = 1;  
        int y = 2;  
        int z = 3;  
  
        z = mystery(x, z, y);           // Statement 1  
        System.out.println(x + " " + y + " " + z); // Statement 2  
        x = mystery(z, z, x);           // Statement 3  
        System.out.println(x + " " + y + " " + z); // Statement 4  
        y = mystery(y, y, z);           // Statement 5  
        System.out.println(x + " " + y + " " + z); // Statement 6  
    }  
  
    public static int mystery(int z, int x, int y) {  
        z--;  
        x = 2 * y + z;  
        y = x - 1;  
        System.out.println(y + " " + z);  
        return x;  
    }  
}
```

Statement 1:

Statement 2:

Statement 3:

Statement 4:

Statement 5:

Statement 6:



Students, draw anywhere on this slide!

# Answers

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	x	y	z
Starting	1	2	3
Statement 1: after first method call mystery(1, 3, 2)	3 0		
	1	2	4
Statement 2:	1 2 4		
Statement 3: after second method call mystery(4, 4, 1)	4 3		
	5	2	4
Statement 4	5 2 4		
Statement 5: after third method call mystery(2, 2, 4)	8 1		
	5	9	4
Statement 6	5 9 4		

Consider the following method:

```
public static double myMethod(int a, boolean b)
{ /* implementation not shown */ }
```

Which of the following lines of code, if located in a method in the same class as `myMethod`, will compile without error?

- ☐ A `int result = myMethod(2, false);`
- ☐ B `int result = myMethod(2.5, true);`
- ☐ C `double result = myMethod(0, false);`
- ☐ D `double result = myMethod(true, 10);`
- ☐ E `double result = myMethod(2.5, true);`



Students choose an option

Answer

C

Consider the following class:

```
public class ThisClass {  
    public static void main(String[] args) {  
        int x = method1(6);  
        System.out.println(x-3);  
    }  
  
    public static int method1(int b){  
        method2(b+1, "sweet");  
        return 2*b;  
    }  
  
    public static void method2(int a, String s){  
        System.out.println("This is " + a + " times " + s + "er");  
    }  
}
```

What is printed as a result of running this program?



Students, write your response!

# Answer

Output:

This is 7 times sweeter

9

Consider the following class:

```
public class ThatClass {  
    public static void main(String[] args) {  
        int y =foobar(7);  
    }  
  
    public static int foo(int b){  
        return b-2;  
    }  
  
    public static int foobar(int a){  
        a += 1;  
        int y = foo(12);  
        return y;  
    }  
}
```

What is value of the `y` variable in the `main` method after running this program?



Students, write your response!

Answer

y holds 10



Consider the following class:

```
public class FinalClass {  
    public static void main(String[] args) {  
        int y =cD(5);  
    }  
  
    public static int aB(int b){  
        b--;  
        int z= cD(b);  
        return z;  
    }  
  
    public static int cD(int a){  
        return aB(a+2);  
    }  
}
```

What is value of the `y` variable in the `main` method after running this program?



Students, write your response!

# Answer

methods call each other infinitely until `StackOverflowError` occurs due to memory issues

# Additional Review Problems

Choose a problem from Unit 1 or Unit 2 on CodeHS to do coding practice