**CS401 Intro to Algorithm**

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| **Group Name: ERROR 404** |
| **Group Leader:** Mark Decello |
| **Group Members:** Mark Decello, Julius Lopez, Gene Olivia,   Hanel Duran, Naglaa Saeid |
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**Topic:** Polish Peasant

**Program Code: PolishPeasant.java …...…..………..……………… page 2**

**Program Output …………………………………………………….….. page 3**

**Code**

public class PolishPeasant{  
  
  
 public static void main(String[] args){  
 int num1 = 50;  
 int num2 = 30;  
 int product = 0;  
  
 //Just to label num1 and num2  
 System.out.println("Num1\tNum2");  
 System.out.println(num1 + "\t" + num2);  
   
 //Reads if num2 is odd to check whether to add num1 to the total  
 if(num2 % 2 == 1){  
 product += num1;  
 }  
  
 //A loop to continue to read num2 and divide by half until num2 is 1  
 //The if statement continues to add all of num1 when num2 is odd  
 while(num2 != 1){  
 if(num1 == 0 || num2 == 0){  
 product = 0;  
 break;  
 }  
 num2 = num2 / 2;  
 num1 = num1 \* 2;  
 if(num2 % 2 == 1){  
 product += num1;  
 }  
 System.out.println(num1 + "\t" + num2);  
 }  
 //Just to display the product of the two numbers  
 System.out.println("---------------");  
 System.out.println(product + "\t" + num2);  
 }  
}

**Program Output 1**

Num1 Num2  
50 30  
100 15  
200 7  
400 3  
800 1  
---------------  
1500 1  
A screenshot of a cell phone

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**Program Output 2**

Num1 Num2  
75 13  
150 6  
300 3  
600 1  
---------------  
975 1

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