When finished email canaan.linder@gmail.com

Name your file and subject as Midterm27A – “username”

1. Given:  
      int a = 300;  
      double b = 571.2;   
      ?? result = a + b;

  The variable result must be declared \_\_\_double\_\_\_\_.

1. Declare an int max with a final value of 50.

Int max = 50;

3. How many times will this loop execute?

    int power = 3;  
  while (power > 1000)  
  {  
     power = power \* power;  
  }

Three times.

4. What is the output of the following code?;

int x = 5;  
int y = 8;  
int z = 10;  
if (x > 5)  
{  
if (y > 8)  
{  
 System.out.println("x > 5 and y > 8");  
}  
else if (z >= 7)  
 {  
 System.out.println("x <= 5 and z >= 7");  
 }

}   
else  
{  
 System.out.println("x <= 5 and z < 7");  
}  
  
Hint: Try rewriting the segment with proper indenting.

x <= 5 and z < 7

5. Show the output of the following code.  
  
public class Test   
{  
 public static void main(String[] args)  
 {  
 int k = 1;  
 while (k <= 3)  
 {  
 int num = 1;  
 for (int j = 1; j <= k; j++)  
 {  
 System.out.print(num + "xx");  
 num = num \* 5;  
 }  
 System.out.println();  
 k++;  
 }  
 }  
}

1xx

1xx5xx

1xx5xx25xx

6. Write a program to print the numbers 1 to 5 (including 1 and 5) and their cube (x3 ). You can calculate the cube using  Math.pow(double value, double power). For example:  
  
    Math.pow(2, 3) is 8.0

Declare 3 as a constant.

Paste the output into the source code. Upload the file below.

**public** **class** ClassTest

{

/\*\*

This is a program that prints the numbers 1 to 5 and their cube.

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\*/

**public** **static** **void** main(String[] args)

{

**final** **int** exponent = 3;

**int** number1 = 1;

**double** cube1 = Math.*pow*(number1, exponent);

System.*out*.println("The cube of " + number1 + " is " + cube1);

**int** number2 = 2;

**double** cube2 = Math.*pow*(number2, exponent);

System.*out*.println("The cube of " + number2 + " is " + cube2);

**int** number3 = 3;

**double** cube3 = Math.*pow*(number3, exponent);

System.*out*.println("The cube of " + number3 + " is " + cube3);

**int** number4 = 4;

**double** cube4 = Math.*pow*(number4, exponent);

System.*out*.println("The cube of " + number4 + " is " + cube4);

**int** number5 = 5;

**double** cube5 = Math.*pow*(number5, exponent);

System.*out*.println("The cube of " + number5 + " is " + cube5);

}

}

/\*

The cube of 1 is 1.0

The cube of 2 is 8.0

The cube of 3 is 27.0

The cube of 4 is 64.0

The cube of 5 is 125.0

\*/

7. Write a program to read scores (integers greater than or equal to 0) and print if the score is an A, B, C, D, or F. Keep asking for new scores until the user enters a negative number.

Grade to percentages  
A - 90 to 100  
B - 80 to 89  
C - 70 to 79  
D - 60 to 69  
F - 59 and below