***Computer-Chocolate Mini Code-off***

**Rules:**

**Complete problems 1-3, and then skip down to the main function to complete problems 4-11. You may not use your computer or cell phone – you may use your notes and you may ask me yes/no questions.**

**public** **class** HelloWorld {

/\*Problem 1 \*/

// Why does this function give you a little red x (won't work!)?

// public static int badfun(int x, int y) {

// int k = x//y;

// return(k);

// }

/\*Problem 2 \*/

// Why does this function give you a little red x (won't work!)?

// public static void badfun2(int x, int y) {

// double z = (x + y)/y;

// return(z);

// }

/\*Problem 3 \*/

// Why does this function give you a little red x (won't work!)?

// public static String badfun3() {

// String x = ('This is a joyful experience!');

// return(x);

// }

**public** **static** String fun1a(**int** x, **int** y) {

**if** ((x>=y) && (y>=x)) {

**return**("commensurate");

}

**else** {

**return**("inequitable");

} }

**public** **static** **int** fun1b(**int** x, **int** y) {

**return**(x>y?x:y);

}

**public** **static** **int** fun1c(**int** x, **int** y) {

**return**(x%2==0^y%2==0?x+y-1:x+y);

}

**public** **static** **int** fun2(**int** x, **int** y, **int** z) {

**if** (x <= y) {

**return**(z);

}

**else** {

**return**(*fun2*(x-y,y,z+1));

} }

**public** **static** **int** fun3(**int** x) {

**int** y = 1;

**int** z = 0;

**while** (x > 0) {

z += x%2\*y;

x = x/2;

y\*=10;

}

**return**(z);

}

**public** **static** **int** fun4(**int** x) {

**int** y = 0;

**while** (x > 0) {

y = y\* 10 + x%10;

x /=10;

}

**return**(y);

}

**public** **static** String fun5(String x, String y) {

**return**(x.compareTo(y)<0?x:y);

}

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

**public** **static** **int** gety(**int** k) {

**int** z = 1;

**while** (k > 0) {

k = k/10;

z +=1;

}

**return**(z);

}

**public** **static** **void** fun6() {

**int** x = 1;

**int** y = 52164;

**int** p = 0;

**int** v = *gety*(y);

**while** (v>0 ) {

**int** k = y%10;

**int** z = 1;

**int** kl = 1;

**while** (z<y\*10) {

**int** m = y%(z\*10)/z;

**if** (m >k) {

k = m;

kl = z;

}

z \*= 10;

}

p += k\*x;

x\*=10;

y = y - k\*kl;

v -=1;

}

System.***out***.println(p);

}

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

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

System.***out***.println(*fun1a*(3\*4,48/4)); /\* Problem 4\*/

System.***out***.println(*fun1b*(*fun1b*(*fun1b*(27,18),42),39)); /\* Problem 5 \*/

System.***out***.println(*fun1c*(3,5)); /\*Problem 6\*/

System.***out***.println(*fun1c*(3,2));

System.***out***.println(*fun2*(13,3,0)); /\*Problem 7 \*/

System.***out***.println(*fun3*(19)); /\*Problem 8 \*/

System.***out***.println(*fun4*(2453)); /\*Problem 9 \*/

System.***out***.println(*fun5*(*fun5*("babirusa","axolotl"),"dugong")); /\*Problem 10 \*/

*fun6*(); /\*Problem 11 \*/

}