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 */
	}
```