

Lösungen Klausuraufgaben MDB PR1

1a)

```
public static boolean isOrderedAscending (int a, int b, int c) {  
    return a < b && b < c;  
}
```

1b)

```
public static void printTriangle(PrintWriter out) {  
    out.printf("%15s%n", "123456789012345");  
    int zahl = 11111;  
    for (int i = 0; i < 5; i++) {  
        out.printf("%12d%n", zahl);  
        zahl = (zahl-1)/10;  
    }  
}
```

1c)

```
public static int equalCount (int[] a, int[] b) {  
    if (a == null || b == null)  
        return 0;  
    int laenge = a.length;  
    if (b.length < a.length)  
        laenge = b.length;  
    int count = 0;  
    for (int i = 0; i < laenge; i++) {  
        if (a[i] == b[i])  
            count++;  
    }  
    return count;  
}
```

1d)

```
public static double meanValueOf(File path) {  
    if (path == null || path.isDirectory()) {  
        return 0;  
    }  
    Scanner in;  
    double summe = 0;  
    int count = 0;  
    try {  
        in = new Scanner(path);  
        while (in.hasNext()) {  
            if (in.hasNextInt() || in.hasNextDouble()) {  
                summe += in.nextDouble();  
                count++;  
            } else {  
                in.next();  
            }  
        }  
        if (count == 0) return 0;  
    } catch (IOException e) {  
        return 0;  
    }  
    in.close();  
    return summe/count;  
}
```

2a)

```
markerflag = !markerflag;
```

2b)

```
public static int newCount (int count, int term) {
    if (term < 0) return count;
    return count + term;
}
```

2c)

```
private void runSubMenu (char zeichnen) {
    switch (Character.toLowerCase(zeichnen)) {
        case 'a':    runSubMenuA();
                    break;
        case 'b':    runSubMenuB();
                    }
    }
}
```

3a)

java.io.InputStream, OutputStream, Writer, Reader

3b)

d	<input type="radio"/> depressed	<input type="radio"/> double	<input checked="" type="radio"/> decimal	<input type="radio"/> direct
f	<input checked="" type="radio"/> fixed	<input type="radio"/> formal	<input type="radio"/> fine	<input type="radio"/> float
s	<input type="radio"/> sign	<input type="radio"/> subclass	<input checked="" type="radio"/> string	<input type="radio"/> supertype

3c)

x nein, das geht nicht, weil der Formatspezifizierer e den Wert mit genau einer Vorkommastelle darstellt

3d)

```
public boolean equals (Object o)
public int hashCode()
```

3e) Dont Repeat Yourself

4a)

```
public class PictureData extends BasicPictureData {
    protected int farbtiefe;

    public PictureData (int width, int height, int farbtiefe) {
        super(width, height);
        this.farbtiefe = farbtiefe;
    }

    public PictureData(Dimension d, int farbtiefe) {
        this(d.width, d.height, farbtiefe);
    }

    public PictureData(PictureData pd) {
        this(pd.width, pd.height, pd.farbtiefe);
    }

    protected String getPictureType() {
        if (farbtiefe == 1) {
            return "SW-Bild";
        }
        return "Farbbild";
    }

    public String toString() {
        if (farbtiefe > 1) {
            return super.toString() + ", " + farbtiefe + " bit";
        } else {
            return super.toString();
        }
    }
}
```

