

課題 0301 OilTrade

```
package j1.remedial03;
import java.io.*;

public class OilTrade {
    public static void main(String[] args) throws IOException {
        BufferedReader reader =
            new BufferedReader(new InputStreamReader(System.in));
        System.out.print("資金その1(単位はユーロ):");
        double a = Double.parseDouble(reader.readLine());
        System.out.print("資金その2(単位は円):");
        double b = Double.parseDouble(reader.readLine());
        double c = euroToDollar(a) + yenToDollar(b);
        System.out.println("総量は" + dollarToLiter(c) + "リットル");
    }

    // ユーロをドルに変換
    public static double euroToDollar(double euro) {
        return euro / 0.79;
    }

    // 円をドルに変換
    public static double yenToDollar(double yen) {
        return yen / 115.0;
    }

    // 入手できる原油の量を計算 (ドル->リットル)
    public static double dollarToLiter(double dollar) {
        return dollar / 60.0 * 159.0;
    }
}
```

課題 0302 FindFirst

```
package j1.remedial03;
import java.io.*;

public class FindFirst {
    public static void main(String[] args) throws IOException {
        BufferedReader reader =
            new BufferedReader(new InputStreamReader(System.in));
        int[] data = {1,5,3,10,7,3,5,1,8,7};
        System.out.print("1 から 10 までの整数を 1 つ入力してください: ");
        int x = Integer.parseInt(reader.readLine());

        for(int i=0; i<data.length; i++){
            if(x==data[i]){
                System.out.println(i+"番目に見つかりました。");
                return;
            }
        }
        System.out.println("見つかりませんでした。");
    }
}
```

課題 0303 FindLast

```
package j1.remedial03;
import java.io.*;

public class FindLast {
    public static void main(String[] args) throws IOException {
        BufferedReader reader =
            new BufferedReader(new InputStreamReader(System.in));
        int[] data = {1,5,3,10,7,3,5,1,8,7};
        System.out.print("1 から 10 までの整数を 1 つ入力してください: ");
        int x = Integer.parseInt(reader.readLine());

        for(int i=data.length-1; i>=0; i--){
            if(x==data[i]){
                System.out.println(i+"番目に見つかりました。");
                return;
            }
        }
        System.out.println("見つかりませんでした。");
    }
}
```

課題 0304 FindFirstWithMethods

```
package j1.remedial03;
import java.io.*;

public class FindFirstWithMethods {
    public static void main(String[] args) throws IOException {

        int[] data = {1,5,3,10,7,3,5,1,8,7};
        int x = input();
        find(x, data);
    }

    public static int input() throws IOException {
        BufferedReader reader =
            new BufferedReader(new InputStreamReader(System.in));
        System.out.print("1 から 10 までの整数を 1 つ入力してください: ");
        return Integer.parseInt(reader.readLine());
    }

    public static void find(int x, int[] data){
        for(int i=0; i<data.length; i++){
            if(x==data[i]){
                System.out.println(i+"番目にみつかりました。");
                return;
            }
        }
        System.out.println("みつかりませんでした。");
    }
}
```

課題 0305 Heron

```
package j1.remedial03;
import java.io.*;

public class Heron {
    public static void main(String[] args) throws IOException {
        BufferedReader reader =
            new BufferedReader(new InputStreamReader(System.in));
        System.out.print("辺 a を入力: ");
        double a = Double.parseDouble(reader.readLine());
        System.out.print("辺 b を入力: ");
        double b = Double.parseDouble(reader.readLine());
        System.out.print("辺 c を入力: ");
        double c = Double.parseDouble(reader.readLine());

        double s = (a+b+c)/2;
        double area = Math.sqrt(s*(s-a)*(s-b)*(s-c));
        System.out.print(
            "辺の長さが" + a + ", " + b + ", " + c + "の三角形の");
        System.out.println("面積 = " + area);
    }
}
```

課題 0306 HeronWithMethods

```
package j1.remedial03;
import java.io.*;

public class HeronWithMethods {
    public static void main(String[] args) throws IOException{
        double a = inputEdge("a");
        double b = inputEdge("b");
        double c = inputEdge("c");

        double area = heron(a,b,c);
        report(a,b,c,area);
    }

    public static double inputEdge(String label) throws IOException{
        BufferedReader reader =
            new BufferedReader(new InputStreamReader(System.in));
        System.out.print("辺" + label +"を入力: ");
        return Double.parseDouble(reader.readLine());
    }

    public static double heron(double a, double b, double c){
        double s = (a+b+c)/2;
        return Math.sqrt(s*(s-a)*(s-b)*(s-c));
    }

    public static void report(double a, double b, double c, double area){
        System.out.print(
            "辺の長さが" + a + ", " + b + ", " + c + "の三角形の");
        System.out.println("面積 = " + area);
    }
}
```

課題 0307 HeronArrayMethods

```
package j1.remedial03;
import java.io.*;

public class HeronArrayMethods {
    public static void main(String[] args) throws IOException{
        String[] labels = {"a", "b", "c"};
        double[] edges = inputEdges(labels);
        double area = heron(edges);
        report(edges, area);
    }

    public static double[] inputEdges(String[] labels)
    throws IOException{
        BufferedReader reader =
            new BufferedReader(new InputStreamReader(System.in));
        double[] edges = new double[3];
        for(int i=0; i<3; i++){
            System.out.print("辺" + labels[i] + "を入力: ");
            edges[i] = Double.parseDouble(reader.readLine());
        }
        return edges;
    }

    public static double heron(double[] edges){
        double s = (edges[0]+edges[1]+edges[2])/2;
        return Math.sqrt(s*(s-edges[0])*(s-edges[1])*(s-edges[2]));
    }

    public static void report(double[] edges, double area){
        System.out.print("辺の長さが" + edges[0]
            + ", "+edges[1]+", " + edges[2] + "の三角形の");
        System.out.println("面積 = " + area);
    }
}
```