Jolanta Peisokaitė, JNIN19

1 užduotis:

Main:

```
public class part5Main {
    public static Double sumOfAreas(ArrayList<Triangle> triangles){
        Double sum = 0.0;
        for (Triangle shape:triangles) {
            sum+=shape.area();
        }
        return sum;
    }
    public static void main(String[] args) {
        ArrayList <Triangle> triangles = new ArrayList<Triangle>();

        Triangle triangle = new Triangle(5.0,5.0, 5.0);
        triangles.add(triangle);
        RightTriangle triangle2 = new RightTriangle(5.0,5.0);
        triangles.add(triangle2);
        EquilateralTriangle triangle3 = new EquilateralTriangle(5.0);
        triangles.add(triangle3);

        for (Triangle shape:triangles) {
            System.out.println(shape.area());
        }

        System.out.println("Bendra plotų suma suapvalinus: " +
Math.round(sumOfAreas(triangles)));

    }
}
```

Triangle:

```
public class Triangle {
    Double edgeFirst;
    Double edgeSecond;
    Double edgeThird;

    Triangle(){}

    Triangle(Double _edgeFirst, Double _edgeSecond, Double _edgeThird){
        edgeFirst = _edgeFirst;
        edgeSecond = _edgeSecond;
        edgeThird = _edgeThird;
    }

    public Double area(){
        Double halfPerimeter = (edgeFirst + edgeSecond + edgeThird)/2.0;
        return Math.sqrt(halfPerimeter*(halfPerimeter-
edgeFirst)*(halfPerimeter-edgeSecond)*(halfPerimeter-edgeThird));
    }
}
```

RightTriangle (Statusis):

```
public class RightTriangle extends Triangle{

    RightTriangle(Double _edgeFirst, Double _edgeSecond){
        edgeFirst = _edgeFirst;
        edgeSecond = _edgeSecond;
    }

    public void findEdgeThird(){
        edgeThird = Math.sqrt(edgeFirst * edgeFirst + edgeSecond *
edgeSecond);
    }

    public Double area() {
        return (edgeFirst * edgeSecond) / 2.0;
    }
}
```

EquilateralTriangle (lygiakraštis):

```
public class EquilateralTriangle extends Triangle{
    EquilateralTriangle(Double _edgeFirst){
        edgeFirst = _edgeFirst;
    }

    public void edgesValues(){
        edgeSecond = edgeFirst;
        edgeThird = edgeFirst;
    }

    public Double area(){
        return (edgeFirst * edgeFirst * Math.sin(Math.toRadians(60)))/2.0;
    }
}
```

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2 užduotis:

Main:

```
public class part6Main {
    public static void main(String[] args) {
        Staff company = new Staff();

        Employee empl1 = new Employee("Jonas", "Jonaitis", "861515515",1234,
1000);
        company.addStaffMember(empl1);

        Employee empl2 = new Employee("Petras", "Petraitis", "861512315",1235,
900);
        company.addStaffMember(empl2);

        Trainee tr = new Trainee("Lukas", "Lukaitis", "861123315");
        company.addStaffMember(tr);

        Executive exe = new Executive("Marytė", "Marytytė", "861233315", 1236,
1100, 150);
        company.addStaffMember(exe);

        Hourly hour1 = new Hourly("Rimas", "Rimaitis","861233515", 1237, 10,
5.5);
        company.addStaffMember(hour1);

        Hourly hour2 = new Hourly("Ona", "Onaitė","861235925", 1238, 20, 5.5);
        company.addStaffMember(hour2);

        System.out.println(company.payDay());

    }
}
```

Staff:

```
public class Staff {
    StaffMember[] staffList;

    Staff(){
        staffList = new StaffMember[10];
    }

    void addStaffMember(StaffMember staff){
        for (int i=0; i<staffList.length; i++){
            if(staffList[i] == null) {
                staffList[i] = staff;
                break;
            }
        }
    }

    double payDay(){
        double allPaid = 0;
        for (StaffMember person:staffList) {
            if(person!=null) {
```

```
                System.out.println(person.toString());
                System.out.println();
                allPaid += person.pay();
            }
            else continue;
        }
        return allPaid;
    }
}
```

StaffMember:

```
public class StaffMember {
    protected String name;
    protected String surname;
    protected String phone;

    StaffMember(String _name, String _surname, String _phone){
        name = _name;
        surname = _surname;
        phone = _phone;
    }

    public String toString(){
        String data = "";
        data+= name + " " + surname + " " + phone + "\n";
        data+="Sumokėta: " + pay();
        return data;
    }

    public double pay(){
        return 0;
    }
}
```

Trainee:

```
public class Trainee extends StaffMember{

    Trainee(String _name, String _surname, String _phone) {
        super(_name, _surname, _phone);
    }
}
```

Employee:

```
public class Employee extends StaffMember{
    int socInsuranceNr;
    double salary;

    Employee(String _name, String _surname, String _phone, int
_socInsuranceNr, double _salary) {
        super(_name, _surname, _phone);
        socInsuranceNr = _socInsuranceNr;
        salary = _salary;
```

```
    }

    Employee(String _name, String _surname, String _phone, int
_socInsuranceNr) {
        super(_name, _surname, _phone);
        socInsuranceNr = _socInsuranceNr;
    }

    @Override
    public double pay() {
        return salary;
    }
}
```

Executive

```
public class Executive extends Employee{
    double bonus = 0;

    Executive(String _name, String _surname, String _phone, int
_socInsuranceNr, double _salary, double bonus) {
        super(_name, _surname, _phone, _socInsuranceNr, _salary);
        awardBonus(bonus);
    }

    void awardBonus(double bonus){
        this.bonus+=bonus;
    }

    @Override
    public double pay() {
        double paid = salary + bonus;
        bonus = 0;
        return paid;
    }
}
```

Hourly:

```
public class Hourly extends Employee{

    int hoursWorked;
    double rate;

    Hourly(String _name, String _surname, String _phone, int _socInsuranceNr,
int _hoursWorked, double _rate) {
        super(_name, _surname, _phone, _socInsuranceNr);
        hoursWorked = _hoursWorked;
        rate = _rate;
    }

    void addHours(int hours){
        hoursWorked+=hours;
    }

    @Override
```

```
    public double pay() {
        double pay = rate * hoursWorked;
        hoursWorked = 0;
        return pay;
    }
}
```