

```

public class Triangle {

    private    int
    side1; private
    int    side2;
    private    int
    side3;

    public Triangle(int side1, int side2, int side3) { if
    (side1 <= 0 || side2 <= 0 || side3 <= 0) throw new
        IllegalArgumentException(
            "Sides can only be positive numbers");

        this.side1    =
        side1; this.side2
        =    side2;
        this.side3    =
        side3;
    }

    public int getSide1()
        { return
        side1;
    }

    public void setSide1(int side1) {
        this.side1 = side1;
    }

    public int getSide2()
        { return
        side2;
    }

    public void setSide2(int side2) {
        this.side2 = side2;
    }

    public int getSide3()
        { return
        side3;
    }

    public void setSide3(int side3) {
        this.side3 = side3;
    }
}

```

```

public boolean isValidTriangle(){
    if ((side1 + side2 > side3) && (side1 + side3 > side2) && (side3 + side2 >
side1))
        return true;
    else
        return false;
}

public String getTriType() throws Exception { if (isValidTriangle()){
    if ((side1 == side2) && (side2 == side3)) return "equilateral";
    else if ((side1 == side2) || (side1 == side3) || (side2 == side3))
        return "isosceles";
    else
        return "scalene";
    else
        throw new Exception("The sides don't form a valid triangle.");
}
}

```