Kapitel 5: Eigene Methoden (Lösungen)

LÖSUNG ZU AUFGABE 35: KUCHEN BACKEN

```java
public class MyKaraIO extends KaraIO {

    public void act() {
        drawRectangle(21, 4);

        stop();
    }

    public void drawRectangle(int width, int height) {
        int i = 0;
        while (i < height) {
            putLeafs(width);
            turnAround();
            multiMove(width);

            // go to next line
            turnRight();
            move();
            turnRight();

            i = i + 1;
        }
    }

    public void putLeafs(int count) {
        int i = 0;
        while (i < count) {
            putLeaf();
            move();
            i = i + 1;
        }
    }

    public void multiMove(int steps) {
        int i = 0;
        while (i < steps) {
            move();
            i = i + 1;
        }
    }

    public void turnAround() {
        turnLeft();
        turnLeft();
    }
}
```

LÖSUNG ZU AUFGABE 36: KERZEN AUF KUCHEN

```java
public class MyKaraIO extends KaraIO {

    public void act() {
        drawRectangle(21, 4);
        drawCandles(10);

        stop();
    }

    public void drawCandles(int count) {
        int i = 0;
        while (i < count) {
            move();
            turnLeft();
            putLeafs(3);
            turnAround();
            multiMove(3);
            turnLeft();
            move();
            i = i + 1;
        }
    }

    public void drawRectangle(int width, int height) {
        // ...
    }

    public void putLeafs(int count) {
        // ...
    }

    public void multiMove(int steps) {
        // ...
    }

    public void turnAround() {
        // ...
    }
}
```

LÖSUNG ZU AUFGABE 37: KERZEN NACH ALTER

```java
public class MyKaraIO extends KaraIO {

    public void act() {
        drawRectangle(21, 4);

        int age = intInput("How old is your grandmother?");
        drawCandles(age / 10);

        stop();
    }

    public void drawCandles(int count) {
        // ...
    }

    public void drawRectangle(int width, int height) {
        // ...
    }

    public void putLeafs(int count) {
        // ...
    }

    public void multiMove(int steps) {
        // ...
    }

    public void turnAround() {
        // ...
    }
}
```

LÖSUNG ZU AUFGABE 38: TORTE

```java
public class MyKaraIO extends KaraIO {

    public void act() {
        int age = intInput("How old is your grandmother?");
        drawLayers(age / 10 - 5);

        stop();
    }

    public void drawLayers(int layers) {
        int currentWidth = 21;

        int i = 0;
        while (i < layers) {
            drawRectangle(currentWidth, 2);
            move();
            move();

            currentWidth = currentWidth - 4;
            i = i + 1;
        }
    }

    public void drawRectangle(int width, int height) {
        // ...
    }

    public void putLeafs(int count) {
        // ...
    }

    public void multiMove(int steps) {
        // ...
    }

    public void turnAround() {
        // ...
    }
}
```