Chapter 5: Methods (Solutions)

Solution to Task 35: Baking a Cake

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();

 }

}

Solution to Task 36: Candles on Cake

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() {

 // ...

 }

}

Solution to Task 37: Candles for Age

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() {

 // ...

 }

}

Solution to Task 38: Layered Cake

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() {

 // ...

 }

}