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() {
          // ...
     }
}
```