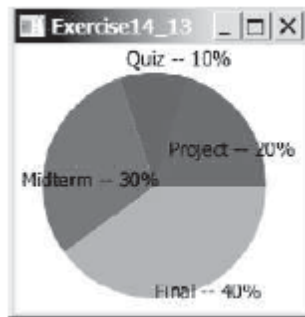


Java FX Basics

****14.13** (*Display a pie chart*) Write a program that uses a pie chart to display the percentages of the overall grade represented by projects, quizzes, midterm exams, and the final exam, as shown in Figure 14.46c (below). Suppose that projects take **20** percent and are displayed in red, quizzes take **10** percent and are displayed in blue, midterm exams take **30** percent and are displayed in green, and the final exam takes **40** percent and is displayed in orange. Use the **Arc** class to display the pies. Interested readers may explore the JavaFX **PieChart** class for further study.



(c)

14.4 - Show the output of the following JavaFX program.

```
import javafx.application.Application;
import javafx.stage.Stage;
public class Test extends Application {
    public Test() {
        System.out.println("Test constructor is
invoked");
    }
}
```

14.25 - How do you get the column and row index of a node in a **GridPane**? How do you reposition a node in a **GridPane**?

14.22 - How do you add a node to a **Pane**, **StackPane**, **FlowPane**, **GridPane**, **BorderPane**, **HBox**, and **VBox**? How do you remove a node from these panes?