

# Chapter 5

## Lesson 2 Worksheet 1

Answer the following questions:

- a) Stadium seat numbers determine the section a user sits in and the price of the ticket:

Seat number	Section	Ticket Price
100 - 159	A	\$150
160 - 199	B	\$125
200 - 259	C	\$100
260 - 299	D	\$ 90
300 - 325	E	\$ 75
326 - 349	F	\$ 60
350 - 399	G	\$ 50
400 - 459	H	\$ 40
460 - 499	I	\$ 25

On a separate sheet of paper, design an algorithm that takes input from the user to determine the stadium section and ticket price. After designing the algorithm, create a Concert application that prompts the user for their seat number and then displays the stadium section and ticket price.

- b) A charitable organization awards three different scholarships based on specific criteria:

- **Scholarship A:**

- Minimum of 2 courses in mathematics

- A GPA of 3.5 or higher

- Minimum of 100 hours of volunteer work

- **Scholarship B:**

- Minimum of 2 courses in science or in mathematics

- A GPA of 3.7 or higher

- **Scholarship C:**

- Minimum of 2 courses in the arts

- A GPA of 3.8 or higher

- Minimum of 100 hours of volunteer work or a minimum of 1 athletic award

Design an algorithm for the application on a separate sheet of paper, which will include determining which user input will be required. Note that a student can qualify for more than one scholarship.