Part 2

The farmer plans to hire out quad bikes and allow customers to ride them across a route on his land. Customers will pay £40 for the experience. Concession tickets at £27·50 are available for people under 18 years old and people over 60 years old. Tickets must be purchased as a group booking. The minimum number of people in a group is 2 and the maximum number of people in a group is 10.

Your task is to write a program that will enable the farmer to calculate the total cost of a single group booking.

The program requires the following inputs:

- The name of the group making the booking
- The number of people in each group
- The age of each person in the group

The output from the program should display:

- The name of each group
- The number of people in each group
- The total cost of the group booking (**all totals should be displayed to two decimal places**)

An example of the output is provided below:

Booking Details	
Name of Group:	Tay Forest Scouts
Number in Group:	6
Total Cost:	£177·50

Your task is to create software for the project.

The top level algorithm is shown below. Step 3 has been refined for you.

Pseudocode

MAIN STEPS

1. Get group name
2. Get a valid number of people in the group
3. Get age of each person
4. Calculate the total cost including any concession tickets
5. Display booking details

REFINEMENTS

3. Get age of each person
   - 3.1 Loop for number of people in the group
   - 3.2 Store age of each person
   - 3.3 End loop

<table>
<tr><th colspan="2">Tasks</th><th>Evidence required</th></tr>
<tr><td>1</td><td>Refine the following parts of the algorithm:
• Get a valid number of people in the group (step 2)
• Calculate the total cost including any concession tickets (step 4)
(NOTE: all refinements must include an algorithm and not simply use a feature of an event-driven language.)</td><td>Pseudocode for steps 2 and 4</td></tr>
<tr><td>2</td><td>Create a program that matches the refined algorithm.</td><td>Listing of program</td></tr>
<tr><td>3</td><td>Test your program using the data below:

<table><tr><td>Group Name</td><td>Tay Forest Scouts</td></tr><tr><td>Number of people in the group</td><td>6</td></tr><tr><td>Age of 1st person</td><td>12</td></tr><tr><td>Age of 2nd person</td><td>13</td></tr><tr><td>Age of 3rd person</td><td>13</td></tr><tr><td>Age of 4th person</td><td>17</td></tr><tr><td>Age of 5th person</td><td>38</td></tr><tr><td>Age of 6th person</td><td>63</td></tr></table></td><td>Printed output/ Screenshots</td></tr>
<tr><td>4</td><td>Test your program using an exceptional number of people in a group.</td><td>Printed output/ Screenshots</td></tr>
</table>

END OF COURSEWORK TASK