

## Extra Questions # 05

**Q1.** Write a C program to find and display the result of the following series operation, for a given  $x$  value. Do not forget to make data validation and also do not make any unnecessary checks. Indent the program properly.

Project Name: EQ5\_1  
File Name: Q1.cpp

$$-\frac{3}{(x-5)^4} + \frac{6}{(x-5)^7} - \frac{9}{(x-5)^{10}} \dots \frac{30}{(x-5)^{31}}$$

**Example Run#1:**

```
Enter x (other than 5): 5
Division by zero! Please reenter x: 5
Division by zero! Please reenter x: 3
Result: -0.2448979570
```

**Example Run#2:**

```
Enter x (other than 5): 5
Division by zero! Please reenter x: 26
Result: -0.0000154223
```

**Q2.** Write a C program that gets the value of the  $y$  and finds the result of the following series.

$$z = -\frac{2!}{\sqrt[15]{y+1}} + \frac{4!}{\sqrt[13]{y+1}} - \frac{6!}{\sqrt[11]{y+1}} + \dots - \frac{14!}{\sqrt[3]{y+1}}$$

Project Name: EQ5\_2  
File Name: Q2.cpp

**Example Run#1:**

```
Enter the value of y: -1
Enter the value of y: -1
Enter the value of y: 16
```

The result is -33635200233.31