SVKM'S NMIMS Deemed to be UNIVERSITY | NAVI MUMBAI

MATLAB
Lab2

BTech (CSBS) -Semester VII

19 July 2022, 10:45AM

EXPERIMENT 2

Question1:

A chemical plant releases an amount “A” of pollutant into a stream. The maximum concentration “C” of a pollutant at a point which is at a distance “x” from plant is $C = \frac{A}{x}\sqrt{\frac{2}{\pi e}}$. Create a variable for the value of A and x, and then for C. Assume that the distance x is in meters. Experiment with different values for x.

Question 2:

The sum of a geometric series $1+r+r^2+r^3+\ldots\ldots\ldots+r^n = (1-r^N)/(1-r)$;

N=number of terms in a series. Accept the value of r and n as input from keyboard. Verify the above equation.

EXPERIMENT 2

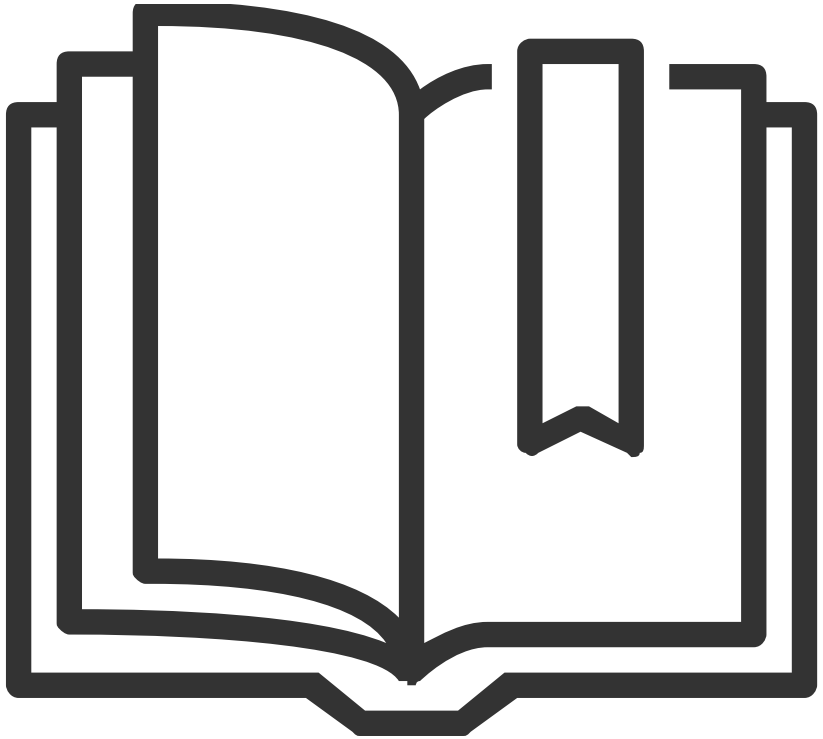
Question 3:

The polar equation of a circle is given by:

$$x = r\cos\theta$$

$$y = r\sin\theta$$

Take $\theta = 0$ to 2π, with step size $\pi/16$ and plot a circle on x-axis for given value of raius r. Give labels to axis and title to the figure. Make use of new figure to redraw the circle with distinct points shown by ‘o’ rather than a continous plot. Now combine the two plots in new figure to show the line through the data points as well as the distinct data points.



Thank you for listening

09:30AM

MATLAB