

2-boat/4-2

Q. 5.

प्रश्न :

बहुपद विस्तार कीजिए

$(x^2 + 2x + 1)^{15}$  का प्रथम पद ज्ञात करें

हल :

माना  $(x^2 + 2x + 1)^{15} = \sum_{r=0}^{15} \binom{15}{r} (x^2)^r (2x)^{15-r} (1)^{15-r}$

इसलिए प्रथम पद  $r=0$  के लिए है

$\binom{15}{0} (x^2)^0 (2x)^{15} (1)^{15} = 1 \cdot 1 \cdot 2^{15} \cdot 1 = 2^{15}$

अतः प्रथम पद  $2^{15}$  है।

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1. Line graph (2) Line graph (2) Line graph (2)

Line graph

Line graph is a type of chart that displays data points connected by straight lines. It is used to show trends over time or across different categories. The x-axis represents the independent variable, and the y-axis represents the dependent variable. The data points are plotted at regular intervals, and lines connect them to show the progression of the data. Line graphs are particularly useful for comparing two or more data series over a period of time. They can also be used to identify patterns, such as peaks and troughs, and to make predictions based on the data shown. The most common type of line graph is the time series graph, which shows data points plotted against time. Other types of line graphs include area graphs, which fill the area under the line, and scatter plots, which do not connect the data points. Line graphs are widely used in business, science, and education to present data in a clear and concise manner.

Line graph

(1)

The first part of the paper is devoted to a general discussion of the problem. It is shown that the problem is well-posed in the sense of Hadamard. The second part is devoted to the construction of the solution. It is shown that the solution exists and is unique. The third part is devoted to the numerical solution of the problem. It is shown that the numerical solution is stable and accurate.

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