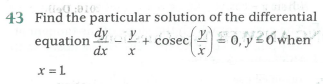
**Expert ID/Name: Nstructive**

**Date: 10-Nov-2020**

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**Answer:**

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| Short answer type question. |

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| Tips:  1. Recall the method of solving the homogeneous differential equation.  2. Substitute in the solution of differential equation |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Explanation: -  Given differential equation is  Step 1:   |  |  | | --- | --- | | Instruction: | Make subject as in | | Calculation: |  |     Step 2:   |  |  | | --- | --- | | Instruction: | Clearly it is a homogeneous function. Take and differentiate with respect  to on both sides. | | Calculation: |  |   Step3:   |  |  | | --- | --- | | Instruction: | Apply the integration on both sides.. | | Calculation: | Now,  Hence, required general solution is |   Step 4:   |  |  | | --- | --- | | Instruction: | Put in | | Calculation: | Therefore, Required particular solution is | |
| Verified Answer: - Particular solution of differential equation is.  Hence, verified. |