**Expert ID/Name: Nstructive**

**Date:**

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**Answer:**

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| **Section 1:** Algorithm/Theorem Reminder / A tip for solving these type of questions |
| **Tips:**   1. Recall the method of solving the differential equation by split into partial fractions, hence find its particular solution. |

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| **Section 2:** Step-by-step answer |
| Given: Differential equation is  To find: particular solution of , given that .  Step1:   |  |  | | --- | --- | | Instruction: | Make the subject as  in  . | | Calculation: | . |   Step 2:   |  |  | | --- | --- | | Instructions | Apply the integration on both sides.  Split into partial fractions. | | Calculation | In,      By solving (1) and (2)    By comparing the  and constant terms on both sides |   Step 3:   |  |  | | --- | --- | | Instructions: | Substitute A,B and C values in .  .  .  . | | Calculation: | .      When then  Hence, the required particular solution is | |

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| **Section 3:** |
| Conclusion: Particular solution of  is  Hence, verified. |