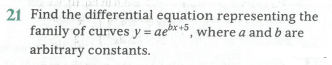
**Expert ID/Name: Nstructive**

**Date: 05-Nov-2020**

****

**Answer:**

|  |
| --- |
| Short answer type question. |

|  |
| --- |
| Tips:   1. Differentiate with respect to “x” on both sides.   . 2 In an equation, if there are “n” number of arbitrary constants then we need to do the differentiation in “n” number of times. |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Explanation: -  Given: The equation of family curves is  , Where  are the arbitrary constants .  To find\determine\prove: Form the differential equation of.  Explanation: -  Step1:   |  |  | | --- | --- | | Instruction | Differentiate the differential equation  with respect to “ ”. | | Calculation | ………(1) and |   Step :   |  |  | | --- | --- | | Instruction | Differentiate the differential equation  with respect to “ ”. | | Calculation | is the required differential equation. | |
| Conclusion:  is the differential equation of .  Hence, verified the answer. |