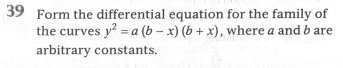
**Expert ID/Name: Nstructive**

**Date: 06-Nov-2020**

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**Answer:**

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| **Section 1:** Algorithm/Theorem Reminder / A tip for solving these type of questions |
| Tips:   1. Differentiate with respect to “x” on both sides. 2. If an equation has “n” number of arbitrary constants then we need to do differentiation in “n” number of times. |

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| **Section 2:** Step-by-step answer |
| Given: The equation of the family of the curves is  To find: Differential equation of family of the curves  Explanation:  Step 1:   |  |  | | --- | --- | | Instruction | Simplify | | Calculation |  |   Step 2:   |  |  | | --- | --- | | Instruction | Differentiate the family of the curves  with respect to “x” on both sides. | | Calculation | Differentiate with respect to “x” on both sides |   Step 3:   |  |  | | --- | --- | | Instruction | Put the value of  in equation in | | Calculation |  | |

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| **Section 3**  Conclusion**:** Differential equation of family of the curves  is . |
| Final answer: |