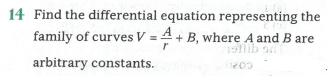
**Expert ID/Name: Nstructive**

**Date: 04-Nov-2020**

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



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

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Given: The equation of all curves,, Where  are arbitrary constants .  To find\determine\prove: Form the differential equation of  Explanation:  Step1:   |  |  | | --- | --- | | Instruction | Differentiate the differential equation with respect to “ ”. | | Calculation | …….(1) |   Step2:   |  |  | | --- | --- | | Instruction | Differentiate the differential equation with respect to “ ”. | | Calculation |  |   Step3:   |  |  | | --- | --- | | Instruction | substitute value of in | | Calculation | Thus, The required differential equation is | |
| Verified Answer: -  Differential equation of  is |