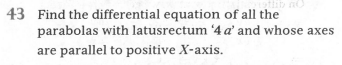
**Expert ID/Name: Nstructive**

**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. Equation of all Parabolas with Latusrectum  and whose axes are parallel to positive X-axis is ,Here,are arbitrary constants. 2. Differentiate with respect to “x” on both sides. 3. 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: Equation of all Parabolas with Latus rectum  and whose axes are parallel to positive X-axis..  To find\determine\prove: Form the differential equation of Equation of all Parabolas with Latus rectum  and whose axes are parallel to positive X-axis.  Explanation:  Step 1:   |  |  | | --- | --- | | Instruction | Recall the Equation of all Parabolas with Latus rectum  and whose axes are parallel to positive X-axis. | | Calculation | Equation of all Parabolas with Latusrectum  and whose axes are parallel to positive X-axis is , Here, are arbitrary constants. |   Step 2:   |  |  | | --- | --- | | Instruction | Differentiate  with respect to “x” on both sides. | | Calculation | ………….(1)  And |   Step 3:   |  |  | | --- | --- | | Instruction | Differentiate equation (1) with respect to “x” on both sides and apply the formulae, | | Calculation |  | |

Step 4:

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| Instruction | Substitute  in |
| Calculation |  |

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| **Section 3**  Conclusion**:** Differential Equation of is . |
| Final answer: |