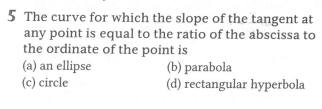
**Expert ID/Name: Nstructive**

**Date: 09-Nov-2020**



**Answer:**

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| MCQ Type Answers |
| Choices   1. An ellipse 2. Parabola 3. circle 4. rectangular hyperbola |

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| Tips:  1 .Slope of the tangent is  and Ratio of the abscissa and ordinate is . Equate both and then form the general equation.  2. Recall the general form of the equations of ellipse, circle, parabola and rectangular hyperbola. |

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| Correct Answer: (d)  Given : The curve for slope of the tangent at any point is equal to the ratio of abscissa to ordinate.  To find: The name of the curve formed by curve for slope of the tangent at any point is equal to the ratio of abscissa to ordinate.  Explanation:  Step 1:   |  |  | | --- | --- | | Instruction | Convert given condition in differential equation form. | | Calculation | The curve for slope of the tangent at any point is equal to the ratio of abscissa to ordinate.  According to given condition |   Step 2:   |  |  | | --- | --- | | Instruction | Separate the terms dy and dx. | | Calculation |  |   Step 3:   |  |  | | --- | --- | | Instruction | Apply the integration on both sides and follow the formula. | | Calculation | Which is a general equation of rectangular hyperbola. | |

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| Final answer: Rectangular hyperbola.  i.e. The curve for which the slope of the tangent at any point is equal to ratio of abscissa to the ordinate of the point is a rectangular hyperbola. |