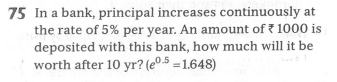
**Expert ID/Name: Nstructive**

**Date: 10-Nov-2020**

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| Answer for Short / Simple / Direct Question |

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| **Tips:**  . Convert the given condition into differential equation.  . |

**Answer:**

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| Given: The rate of increase of the principal is .  To find: The worth of the amount ₹ after years.  Explanation: -  Step1:   |  |  | | --- | --- | | Instruction: | Convert the given condition into differential equation. | | Calculation: | Let be the principal and time respectively. It is given that principal increases continuously at the rate of per year.  of . |   Step 2:   |  |  | | --- | --- | | Instruction: | Integrate on both sides with respect to. | | Calculation: | Now, at |   Step 3:   |  |  | | --- | --- | | Instruction: | Put the value of in equation (1).  Use the formula: . | | Calculation: | When then    Hence, after years the amount will worth ₹ . | |
| Verified Answer: - Hence verified. |