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| 1. |  |
| 2. | Consider the linear correlation between variables *x* and *y* of a statistical distribution. The scatter plot below represents this distribution    What is the approximate value of the linear correlation coefficient between these two variables? |
|  | Answer : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

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| 3. | Information on two games of chance is provided below.  **Game 1**  After placing a bet, the player spins a wheel.  This wheel is divided into 8 congruent sectors: 3 are bluer and 5 are red.   * if the pointer is pointing at a blue sector, the player will receive $20 * if the pointer is pointing at a red sector, the player will receive $12   The game is fair.  **Game 2**  After placing a bet, the player randomly draws a marble from a bag.  The bag contains 20 congruent marbles: 7 are black, 4 are yellow and 9 are green.   * If a black marble is drawn, the player will receive $50. * If a yellow marble is drawn, the player will receive $2. * If a green marble is drawn, the player will not receive any money.   A player must bet the same amount of money to play either Game 2 or Game 1.  Is Game 2 to the player’s advantage, to the player’s disadvantage, or fair?  Explain your answer. |