**A Baker is trying to determine how many dozens of cookies to bake each day. The probability distribution of number of customers /day is as follows:**

**Table 1: Probability distribution of number of customers/day**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. of customers/day | 8 | 10 | 12 | 14 |
| Probability | 0.35 | 0.30 | 0.25 | 0.10 |

**Customers order 1, 2, 3, or 4 dozen cookies according to the following probability distribution:**

**Table 2: Probability distribution of number of dozen of cookies/day**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. of dozen of cookies/day | 1 | 2 | 3 | 4 |
| Probability | 0.40 | 0.30 | 0.20 | 0.10 |

**Cookies sell for Rs. 5.40/dozen. They cost Rs. 3.80/dozen to make.**

**All cookies are not sold at the end of the day and so they are sold to a local grocery store at half a price.**

**Now based on a 5 day simulation calculate how many dozen cookies should be baked on each day**

**Table 3: Random digits for cookie customers/day**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| R.D. for customer/day | 44 | 33 | 95 | 77 | 10 |

**Table 4: Random digit for dozens ordered/customer**

|  |  |  |
| --- | --- | --- |
| **R.D. Dozens Ordered/Customer** | | |
| 8 | | 6 |
| 2 | | 7 |
| 4 | | 5 |
| 8 | | 3 |
| 1 | | 4 |
| 6 | | 0 |
| 3 | | 1 |
| 0 | | 0 |
| 2 | | 2 |
| 0 | | 9 |
| 9 | | 8 |
| 1 | | 6 |
| 0 | | 3 |
| 0 | | 4 |
| 6 | | 0 |
| 3 | | 7 |
| 8 | | 5 |
| 5 | | 9 |
| 1 | | 6 |
| 3 | 3 | |
| 5 | 9 | |
| 0 | 0 | |
| 7 | 2 | |
| 1 | 8 | |
| 9 | 7 | |
| 2 | 5 | |