Tasks:

1. Make a probability distribution representing the number of credit cards approved per week.

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| **Number of credit cards approved** | **Frequency** | **Probability** |
| 0 | 10 | 0.089 |
| 1 | 15 | 0.133 |
| 2 | 30 | 0.267 |
| 3 | 26 | 0.231 |
| 4 | 13 | 0.115 |
| 5 | 8 | 0.071 |
| 6 | 1 | 0.009 |
| 7 | 1 | 0.009 |
| **Total** | **104** | **1.000** |

1. Compute the expected number of credit cards approved per week.

= (0 \* 0.089) + (1 \* 0.133) + (2 \* 0.267) + (3 \* 0.231) + (4 \* 0.115) + (5 \* 0.071) + (6 \* 0.009) + (7 \* 0.009)

= **2.333**

1. Compute the standard deviation and the variance.

**VARIANCE**

= (0 - 2.333)2 \* 0.089 + (1 - 2.333)2 \* 0.133 + (2 - 2.333)2 \* 0.267 + (3 - 2.333)2 \* 0.231 + (4 - 2.333)2 \* 0.115 + (5 - 2.333)2 \* 0.071 + (6 - 2.333)2 \* 0.009 + (7 - 2.333)2 \* 0.009

= **2.095**

**STANDARD DEVIATION**

**=** sqrt(2.095) = **1.447**

1. Find the probability that there would be 8 credit cards approved in a week.

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| **Number of credit cards approved** | **Probability** |
| 8 | **0.009** |

1. What is the probability that no credit card would be approved in a week?

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| --- | --- |
| **Number of credit cards approved** | **Probability** |
| 0 | **0.089** |