Probability Assignment 3

Task Requirements Document

Task Requirements

Normal Distribution:

1. A research scientist reports that mice will live an average of 42 months when their diets are sharply restricted and then enriched with vitamins and proteins. Assuming that the lifetimes of such mice are normally distributed with a standard deviation of 5.3 months, find the probability that a given mouse will live.

(a) more than 32 months.

(b) less than 28 months.

(c) between 37 and 49 months.

Task Requirements

Normal Distribution:

2. Given a normal distribution with $\mu = 35$ and $\sigma = 6$, find

(a) the normal curve area to the right of $x = 18$.

(b) the normal curve area to the left of $x = 27$.

(c) the normal curve area between $x = 30$ and $x = 43$.

(d) the value of x that has 80% of the normal curve area to the left.

Evaluation Criteria

- 80% overall solution structure.
- 5% Screenshots of all steps.
- 15% Apply methods of probability distribution.

Deadline

3/11/2024 at 11:59 pm

Notes

- Submit your unique solution.
- Have fun and enjoy 😊.