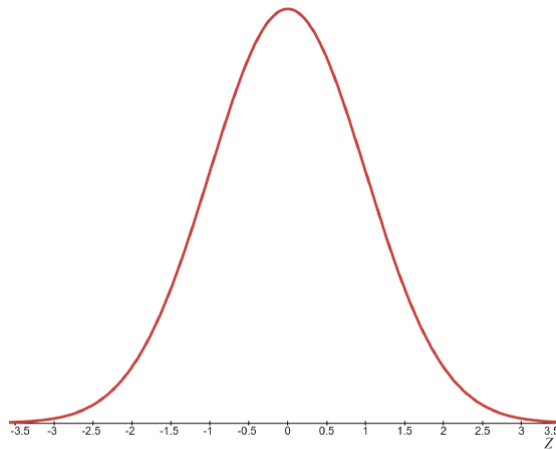


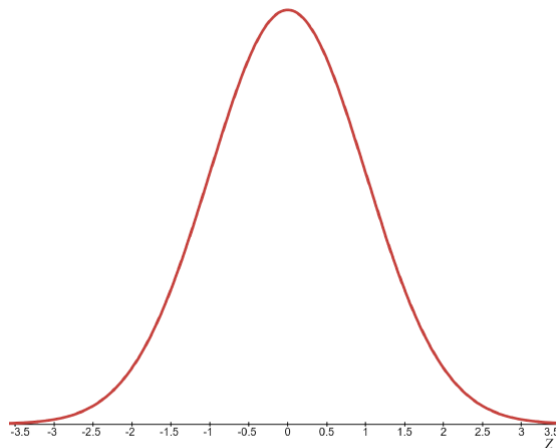
### 5.3.1: Exercises

1. The length of time students needed in order to complete a criminal justice test followed a distribution that was approximately normal. The mean was 68 minutes and the standard deviation was 5 minutes.
  - a. What proportion of students took more than an hour to complete the test? Use probability notation in your answer. Round your answer to four decimal places.



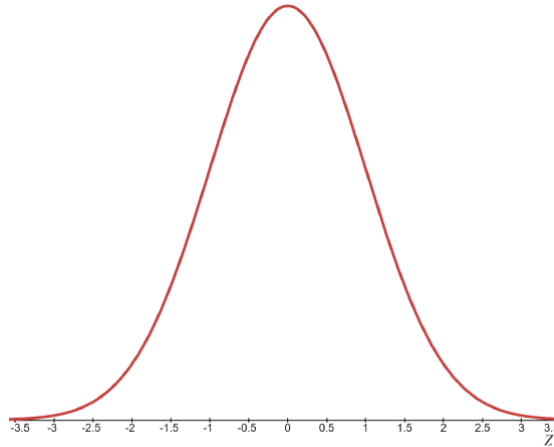
Images are created with the graphing calculator, used with permission from Desmos Studio PBC.

- b. What is the probability that a student needed between 60 and 70 minutes to complete the test? Use probability notation in your answer. Round your answer to four decimal places.



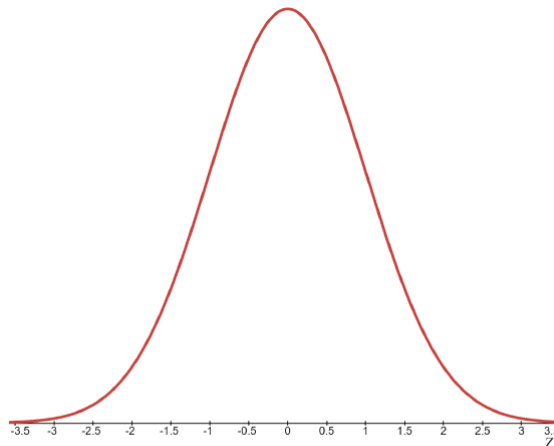
Images are created with the graphing calculator, used with permission from Desmos Studio PBC.

- c. What is the probability that a student takes at most 55 minutes to complete the test? Use probability notation in your answer. Round your answer to four decimal places.



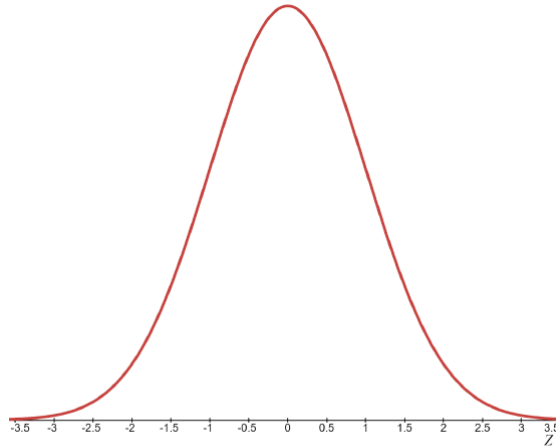
Images are created with the graphing calculator, used with permission from Desmos Studio PBC.

- d. Daniel took 75 minutes to complete the test. Did Daniel complete the test unusually slow? Explain.
- e. What is the proportion of students that complete the test faster than Daniel? Use probability notation in your answer. Round your answer to four decimal places.



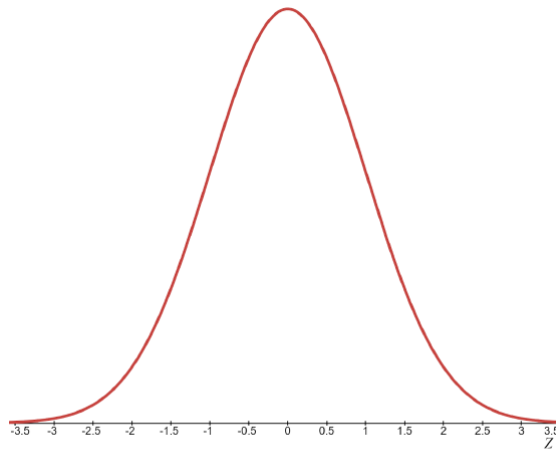
Images are created with the graphing calculator, used with permission from Desmos Studio PBC.

2. The patient recovery time from a particular surgical procedure is normally distributed with a mean of 7 days and a standard deviation of 2.1 days.
- a. What is the probability of spending more than 2 days in recovery? Use probability notation in your answer. Round your answer to four decimal places.



Images are created with the graphing calculator, used with permission from Desmos Studio PBC.

- b. What is the probability of spending less than 2 days in recovery? Use probability notation in your answer. Round your answer to four decimal places.



Images are created with the graphing calculator, used with permission from Desmos Studio PBC.

c. It takes Reggie 2 weeks to recover. Is this an unusual amount of time for recovery? Explain.

3. Explain the difference between a growth mindset and being positive/optimistic.

---

This page titled [5.3.1: Exercises](#) is shared under a [CC BY-NC-SA 4.0](#) license and was authored, remixed, and/or curated by [Hannah Seidler-Wright](#).

- [Current page](#) by Hannah Seidler-Wright is licensed [CC BY-NC-SA 4.0](#).
- [1.2: The Statistical Analysis Process](#) by Hannah Seidler-Wright is licensed [CC BY-NC-SA 4.0](#).