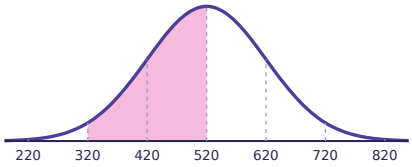
**Task card 1** Normal Distributions & z-Scores

The battery lifetimes in hours are normally distributed with mean 40 and standard deviation 5. Find the z-score of 45.

**Task card 2** Normal Distributions & z-Scores

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)

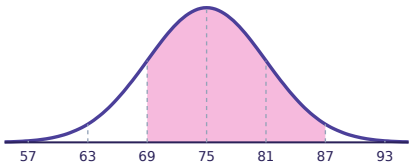



**Task card 3** Normal Distributions & z-Scores

The daily high temperatures in °F are normally distributed with mean 60 and standard deviation 7. Find the z-score of 39.

**Task card 4** Normal Distributions & z-Scores

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)

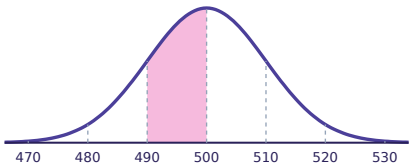



**Task card 5** Normal Distributions & z-Scores

The daily high temperatures in °F are normally distributed with mean 60 and standard deviation 7. Find the z-score of 53.

**Task card 6** Normal Distributions & z-Scores

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)

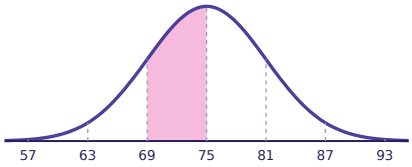


**Task card 7** Normal Distributions & z-Scores

The adult heights in inches are normally distributed with mean 66 and standard deviation 3. Find the z-score of 72.

**Task card 8** Normal Distributions & z-Scores

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)

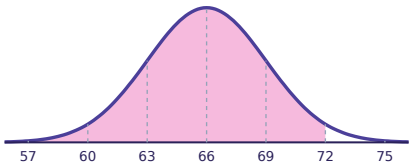



**Task card 9** Normal Distributions & z-Scores

The test scores are normally distributed with mean 75 and standard deviation 6. Find the z-score of 81.

**Task card 10** Normal Distributions & z-Scores

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)

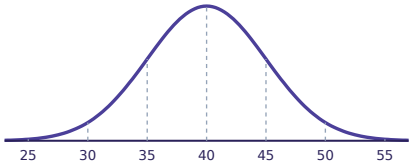



**Task card 11** Normal Distributions & z-Scores

The commute times in minutes are normally distributed with mean 30 and standard deviation 4. Which value has a z-score of 2.5?

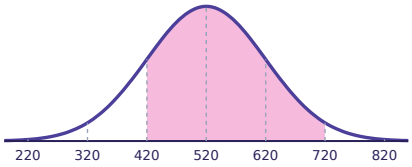
**Task card 12** Normal Distributions & z-Scores

The battery lifetimes in hours are normally distributed with mean 40 and standard deviation 5. About what percent of the data is above 30?



**Task card 13** Normal Distributions & z-Scores

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)

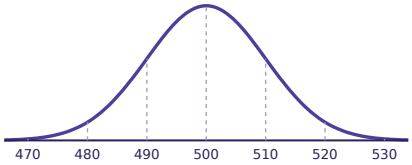



**Task card 14** Normal Distributions & z-Scores

The battery lifetimes in hours are normally distributed with mean 40 and standard deviation 5. Find the z-score of 50.

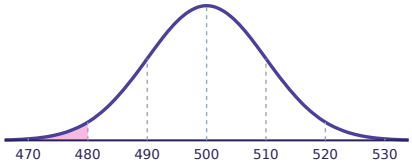
**Task card 15** Normal Distributions & z-Scores

The cereal box weights in grams are normally distributed with mean 500 and standard deviation 10. About what percent of the data is above 520?




**Task card 16** Normal Distributions & z-Scores

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)

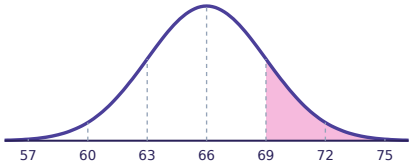



**Task card 17** Normal Distributions & z-Scores

The cereal box weights in grams are normally distributed with mean 500 and standard deviation 10. Find the z-score of 485.

**Task card 18** Normal Distributions & z-Scores

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)

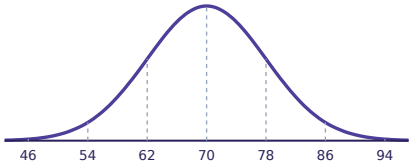


**Task card 19** Normal Distributions & z-Scores

The test scores are normally distributed with mean 75 and standard deviation 6. Which value has a z-score of -1?

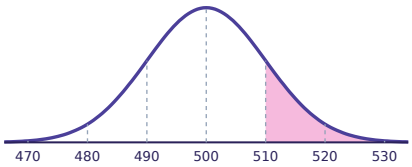
**Task card 20** Normal Distributions & z-Scores

The test scores are normally distributed with mean 70 and standard deviation 8. About what percent of the data is above 46?




**Task card 21** Normal Distributions & z-Scores

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)

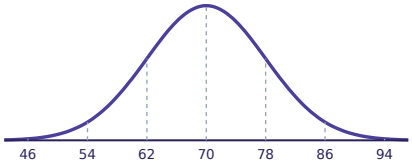



**Task card 22** Normal Distributions & z-Scores

The SAT math scores are normally distributed with mean 520 and standard deviation 100. Find the z-score of 720.

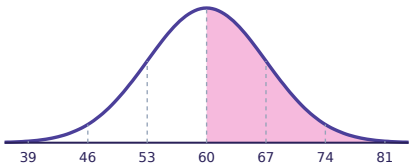
**Task card 23** Normal Distributions & z-Scores

The test scores are normally distributed with mean 70 and standard deviation 8. About what percent of the data is above 62?




**Task card 24** Normal Distributions & z-Scores

About what percent of the data lies in the shaded region? (Use the 68-95-99.7 rule.)



# Normal Distributions & z-Scores Task Cards

Recording sheet · Grade 11 · Use z = (x - μ) / σ and the 68-95-99.7 rule.

Name: _____ Date: _____

Scan to check your answers

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 |

# Normal Distributions & z-Scores Task Cards: Answer Key

Grade 11 · Easy

The answers online

| | | |
|---|---|---|
| **1.** 1 | **2.** 47.5% | **3.** -3 |
| **4.** 81.5% | **5.** -1 | **6.** 34% |
| **7.** 2 | **8.** 34% | **9.** 1 |
| **10.** 97.35% | **11.** 40 | **12.** 97.5% |
| **13.** 81.5% | **14.** 2 | **15.** 2.5% |
| **16.** 2.35% | **17.** -1.5 | **18.** 15.85% |
| **19.** 69 | **20.** 99.85% | **21.** 15.85% |
| **22.** 2 | **23.** 84% | **24.** 49.85% |