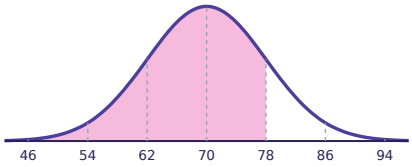
Task card 1 Normal Distributions & z-Scores

The SAT math scores are normally distributed with mean 520 and standard deviation 100. Find the z-score of 420.

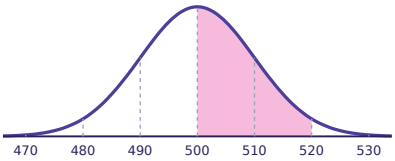
Task card 2 Normal Distributions & z-Scores

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



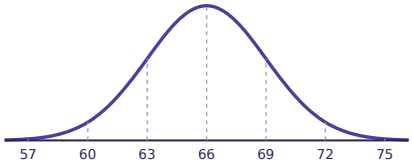
Task card 3 Normal Distributions & z-Scores

The cereal box weights in grams are normally distributed with mean 500 and standard deviation 10. Out of 600 values, about how many are between 500 and 520?



Task card 4 Normal Distributions & z-Scores

The adult heights in inches are normally distributed with mean 66 and standard deviation 3. About what percent of the data is above 75?

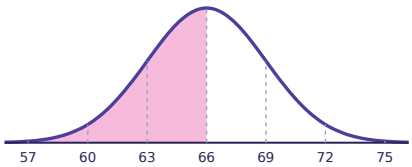


Task card 5 Normal Distributions & z-Scores

The battery lifetimes in hours are normally distributed with mean 40 and standard deviation 5. Which value has a z-score of -2?

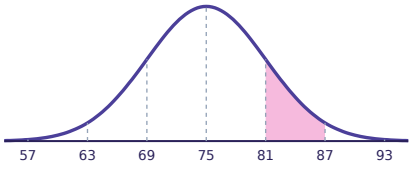
Task card 6 Normal Distributions & z-Scores

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



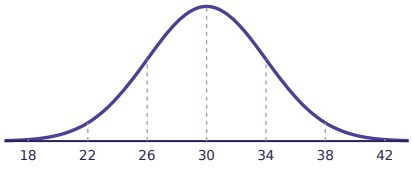
Task card 7 Normal Distributions & z-Scores

The test scores are normally distributed with mean 75 and standard deviation 6. Out of 600 values, about how many are between 81 and 87?



Task card 8 Normal Distributions & z-Scores

The commute times in minutes are normally distributed with mean 30 and standard deviation 4. About what percent of the data is above 22?

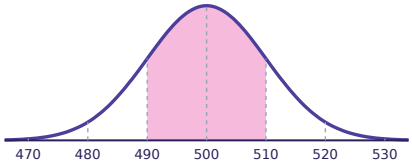


Task card 9 Normal Distributions & z-Scores

The commute times in minutes are normally distributed with mean 30 and standard deviation 4. Find the z-score of 34.

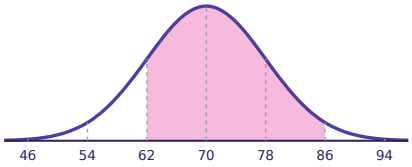
Task card 10 Normal Distributions & z-Scores

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



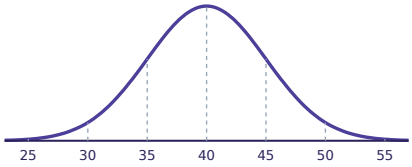
Task card 11 Normal Distributions & z-Scores

The test scores are normally distributed with mean 70 and standard deviation 8. Out of 600 values, about how many are between 62 and 86?



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 45?

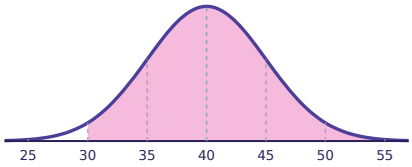


Task card 13 Normal Distributions & z-Scores

The SAT math scores are normally distributed with mean 520 and standard deviation 100. Which value has a z-score of 2?

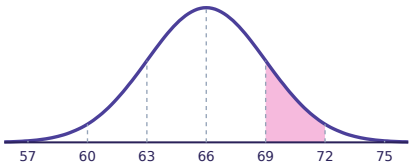
Task card 14 Normal Distributions & z-Scores

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



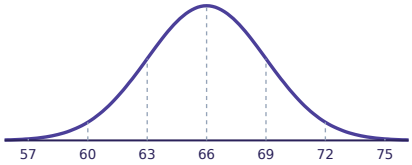
Task card 15 Normal Distributions & z-Scores

The adult heights in inches are normally distributed with mean 66 and standard deviation 3. Out of 600 values, about how many are between 69 and 72?



Task card 16 Normal Distributions & z-Scores

The adult heights in inches are normally distributed with mean 66 and standard deviation 3. About what percent of the data is above 63?

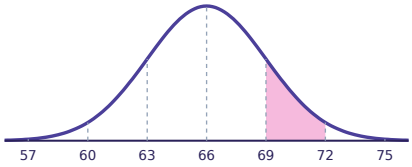


Task card 17 Normal Distributions & z-Scores

The battery lifetimes in hours are normally distributed with mean 40 and standard deviation 5. Find the z-score of 37.5.

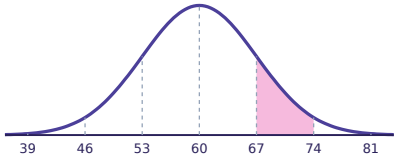
Task card 18 Normal Distributions & z-Scores

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



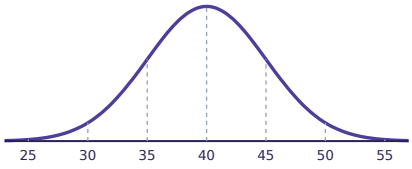
Task card 19 Normal Distributions & z-Scores

The daily high temperatures in °F are normally distributed with mean 60 and standard deviation 7. Out of 600 values, about how many are between 67 and 74?



Task card 20 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 25?

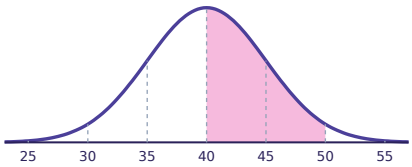


Task card 21 Normal Distributions & z-Scores

The SAT math scores are normally distributed with mean 520 and standard deviation 100. Which value has a z-score of 2.5?

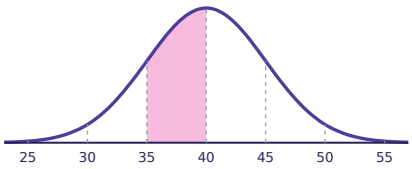
Task card 22 Normal Distributions & z-Scores

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



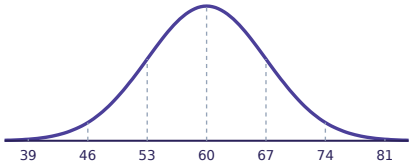
Task card 23 Normal Distributions & z-Scores

The battery lifetimes in hours are normally distributed with mean 40 and standard deviation 5. Out of 400 values, about how many are between 35 and 40?



Task card 24 Normal Distributions & z-Scores

The daily high temperatures in °F are normally distributed with mean 60 and standard deviation 7. About what percent of the data is above 74?



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 · Medium

The answers online

1. -1	**2.** 83.85%	**3.** 285
4. 0.15%	**5.** 30	**6.** 49.85%
7. 81	**8.** 97.5%	**9.** 1
10. 68%	**11.** 489	**12.** 16%
13. 720	**14.** 97.35%	**15.** 81
16. 84%	**17.** -0.5	**18.** 13.5%
19. 81	**20.** 99.85%	**21.** 770
22. 47.5%	**23.** 136	**24.** 2.5%