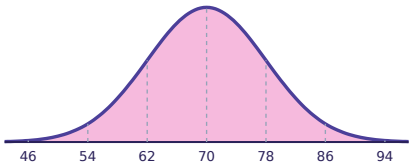
Task card 1 Normal Distributions & z-Scores

The commute times in minutes are normally distributed with mean 30 and standard deviation 4. Find the z-score of 40.

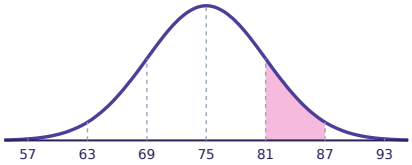
Task card 2 Normal Distributions & z-Scores

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



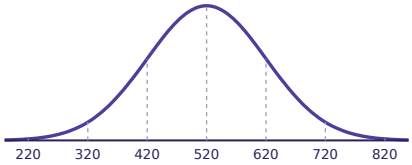
Task card 3 Normal Distributions & z-Scores

The test scores are normally distributed with mean 75 and standard deviation 6. Out of 400 values, about how many are between 81 and 87?



Task card 4 Normal Distributions & z-Scores

The SAT math scores are normally distributed with mean 520 and standard deviation 100. About what percent of the data is above 420?

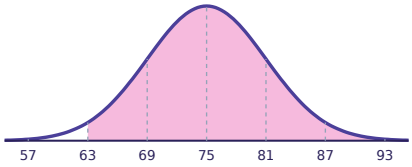


Task card 5 Normal Distributions & z-Scores

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

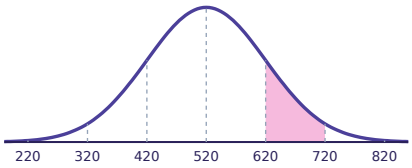
Task card 6 Normal Distributions & z-Scores

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



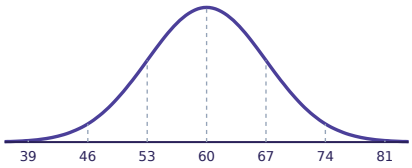
Task card 7 Normal Distributions & z-Scores

The SAT math scores are normally distributed with mean 520 and standard deviation 100. Out of 600 values, about how many are between 620 and 720?



Task card 8 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 39?

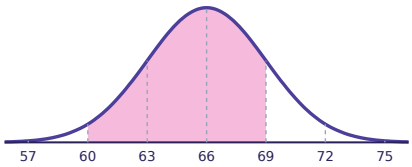


Task card 9 Normal Distributions & z-Scores

The cereal box weights in grams are normally distributed with mean 500 and standard deviation 10. Find the z-score of 525.

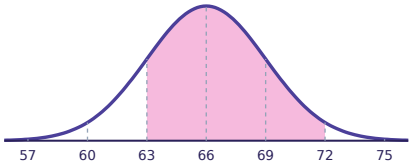
Task card 10 Normal Distributions & z-Scores

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



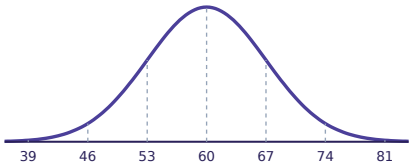
Task card 11 Normal Distributions & z-Scores

The adult heights in inches are normally distributed with mean 66 and standard deviation 3. Out of 200 values, about how many are between 63 and 72?



Task card 12 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 81?

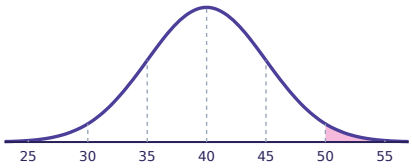


Task card 13 Normal Distributions & z-Scores

The test scores are normally distributed with mean 70 and standard deviation 8. Which value has a z-score of -1?

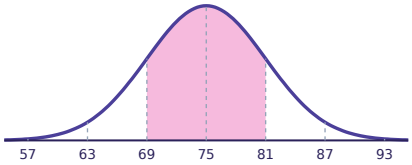
Task card 14 Normal Distributions & z-Scores

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



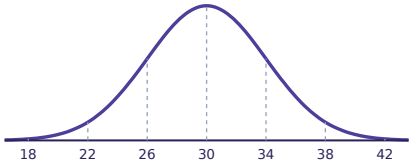
Task card 15 Normal Distributions & z-Scores

The test scores are normally distributed with mean 75 and standard deviation 6. Out of 2000 values, about how many are between 69 and 81?



Task card 16 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 38?

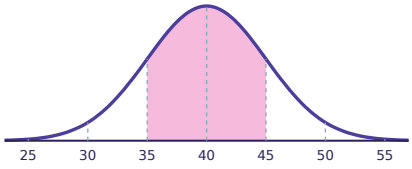


Task card 17 Normal Distributions & z-Scores

The SAT math scores are normally distributed with mean 520 and standard deviation 100. Find the z-score of 620.

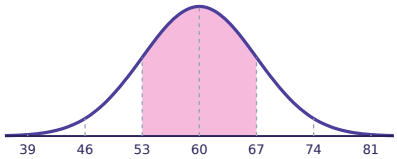
Task card 18 Normal Distributions & z-Scores

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



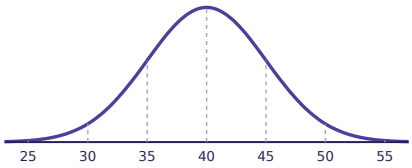
Task card 19 Normal Distributions & z-Scores

The daily high temperatures in °F are normally distributed with mean 60 and standard deviation 7. Out of 2000 values, about how many are between 53 and 67?



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?

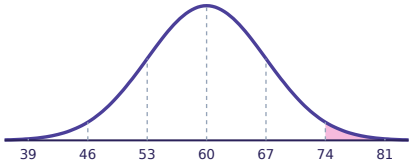


Task card 21 Normal Distributions & z-Scores

The daily high temperatures in °F are normally distributed with mean 60 and standard deviation 7. Which value has a z-score of -1?

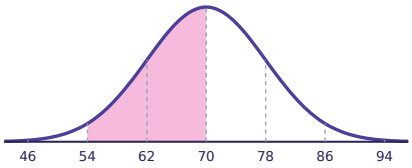
Task card 22 Normal Distributions & z-Scores

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



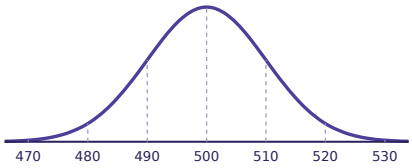
Task card 23 Normal Distributions & z-Scores

The test scores are normally distributed with mean 70 and standard deviation 8. Out of 2000 values, about how many are between 54 and 70?



Task card 24 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 490?



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 · Hard

The answers online

1. 2.5	**2.** 99.7%	**3.** 54
4. 84%	**5.** 270	**6.** 97.35%
7. 81	**8.** 99.85%	**9.** 2.5
10. 81.5%	**11.** 163	**12.** 0.15%
13. 62	**14.** 2.35%	**15.** 1360
16. 2.5%	**17.** 1	**18.** 68%
19. 1360	**20.** 99.85%	**21.** 53
22. 2.35%	**23.** 950	**24.** 84%