

Algebra II Journal
Module 3: Standard Deviation
Just How Normal Are You?

This journal belongs to:

Module 3: Just How Normal Are You?
Algebra II Journal: Reflection 1
Conduct several trials of rolling the number cubes in the interactive. Make note of the sums of the pips (Cube A + Cube B) for each trial in the table below.

| Trial Number | Cube A Results | Cube B Results | Sum of the Pips <br> (Cube A + Cube B) |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Module 3: Just How Normal Are You?
Algebra II Journal: Reflection 2
Using the graph paper below or your graphing calculator, sketch the graph of the normal distribution of number cube rolls.


In what range do the middle $95 \%$ of the rolls lie?

About what percent of the rolls will have a sum greater than $9 ?$

Module 3: Just How Normal Are You?
Algebra II Journal: Reflection 3
In this lesson, you used the mean and standard deviation of a data set to fit the data to a normal distribution and to estimate percentages using the normal distribution.

Respond to the following reflection questions and submit to your teacher.
Why are normal distributions important to statistics?

Why do some data sets follow normal distributions and some do not? Refer to the presidents' weight data to support your answer.

