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The Use of Astronomy to Teach Statistical Concepts

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In this unit, there are two items of astronomy and how to use the statistical tools of regression analysis to verify that these are facts and not mere opinions. The first topic is centered around the Titus-Bode Calculation that states that the planets in our solar system follow a simple relationship between their order and distance from the sun.

The second topic discusses the "Big Bang" theory, which states that the Universe expands according to a linear equation with the slope equal to the Hubble Law. Since this topic covers *time, distance* and *velocity*, with a little further analysis, we can calculate the age of the Universe.

I have included simple charts so that the teacher may just hit on the similarities as well as regression analysis for a more advanced high school class enrolled in statistics or other advanced math course. The bibliography contains many web sites that give detailed information on the various aspects of the module.

(Developed for Statistics and Probability, Regression Chapters, grades 11-12; recommended for Statistics, grades 11-12)