**Question #1 / 5**

|  |  |
| --- | --- |
|

|  |
| --- |
| Let http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?Ybe a standard normal random variable. Use the calculator provided to determine the value of http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%60such that http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?S%23%2B%2E%60%23%25of%23Y%23%25of%23%60%2A%23%3E%233%2D%3A042. Carry your intermediate computations to at least four decimal places. Round your answer to at least two decimal places.  |

 |

|  |  |
| --- | --- |
|

|  |
| --- |
| **Question #2 / 5** Suppose that the heights of adult women in the United States are normally distributed with a mean of http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?57%2D6inches and a standard deviation of http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?1%2D6inches. Jennifer is taller than http://www.phoenix.aleks.com/alekscgi/x/math2htgif.exe/M?%3B3%26of the population of U.S. women. How tall (in inches) is Jennifer? Carry your intermediate computations to at least four decimal places. Round your answer to at least one decimal place.  |

 |

**Question #3 / 5**

According to a recent survey, the salaries of assistant professors have a mean of $ and a standard deviation of $. Assuming that the salaries of assistant professors follow a normal distribution, find the proportion of assistant professors who earn less than $. Round your answer to at least four decimal places.

**Question #4/ 5**

Use the calculator provided to solve the following problems.

* Consider a *t* distribution with degrees of freedom. Compute . Round your answer to at least three decimal places.
* Consider a *t* distribution with degrees of freedom. Find the value of such that . Round your answer to at least three decimal places.