Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Chapter 6 Stat Crunch Assignment**

1. Calculate the following probabilities. Copy and paste Stat Crunch Display for each (1a-1d).
   1. **Round to 4 digits**

0.9857

* 1. **Round to 4 digits**

0.1093

What is ? **Round to 2 digits**

0.91

* 1. **Round to 4 digits**

0.6153

1. Use the data in the table below to answer questions

|  |  |  |  |
| --- | --- | --- | --- |
| Sitting Back-to-Knee Length | | | |
|  | Mean | Standard Deviation | Distribution |
| Males | 23.5 inches | 1.1 inch | Normal |
| Females | 22.7 inches | 1.0 inch | Normal |

* 1. Find the probability that a male has a back-to-knee length less than 21 inches. **Round to 4 decimals.**

0.9885

* 1. Find the probability that a female has a back-to-knee length greater than 24.0 inches. **Round to 4 decimals.**

0.09680

* 1. Find the probability that a female has a back-to-knee length between 22.0 and 24.0 inches. **Round to 4 decimals.**

0.6612

* 1. For males, find the first quartile, which is the length separating the bottom 25% from the top 75%. **Round to 2 decimals.**

22.76

* 1. Instead of using for identifying significant values, use the criteria that a value is significantly high if and a value is significantly low if . Find the back-to-knee lengths for males, separating significant values from those that are not significant. **Round to 2 decimals.**

20.94 in, 26.06 in

* 1. Instead of using for identifying significant values, use the criteria that a value is significantly high if and a value is significantly low if . Find the back-to-knee lengths for females, separating significant values from those that are not significant. **Round to 2 decimals.**

20.74 in, 24.66 in