1. Southwest keeps gate time of its planes at a minimum in order to maximize the flying time, hence capacity utilization of its planes. They want to achieve a turnaround time of 20 minutes on average with a maximum of 25 minutes and a minimum of 15 minutes. (Although faster would be fine with them, the FAA and passengers might think they are cutting corners and not doing everything correctly.)

At the Baltimore airport (BWI), 3 gates a day were sampled over four days to determine how the Southwest ground crew at BWI was doing on this standard. The average of the process was 20.5 minutes and the standard deviation was 1.5 minutes.

* 1. (6 points) Fill in the following table.

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| --- | --- |
|  |  |
| USL |  |
| LSL |  |

* 1. Is the process centered and capable? Why or why not?
  2. What is the probability that a plane will have a turnaround time of greater than 25 minutes? Draw the appropriate diagram and find the probability.