



# Solutions, Quiz 7, CSCI 150, Fall 2003

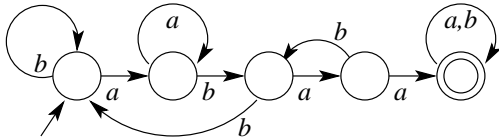
## Statistics

mean	23.773 (523.000/22)
stddev	5.107
median	23.500
midrange	19.000-28.000
#1.	4.50 / 10
#2.	7.14 / 10
#3.	8.14 / 10
+ 4-point bonus	

1.

$S \rightarrow T a T b T \mid T b T a T$   
 $T \rightarrow a T \mid b T \mid \varepsilon$

2.



3.

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$\frac{1}{ababb}$
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$\frac{1}{abaaa}$
$\frac{2}{abbaa}$

(At this point, the machine has nowhere to go, and so it stops.)