

AR(p) and the ACF

2/2 points (100.00%)

Quiz, 2 questions

 **Congratulations! You passed!**[Next Item](#)1 / 1
points

1.

Think about a first order autoregressive process with $\phi=1$. Is this process stationary?



Yes.



No.

Correct

Right! An AR(1) process is only stationary when $-1 < \phi < 1$. In our case, we just push past this region and so we are not stationary. In fact, this is a random walk.

1 / 1
points

2.

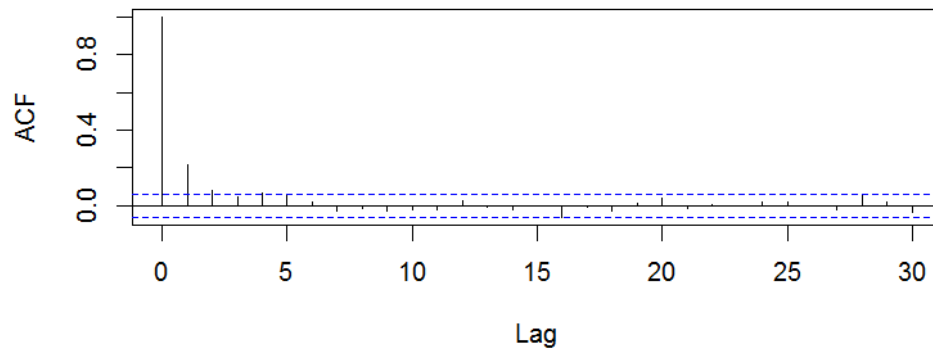
We have two candidate ACFs for an AR(1) process. Which of them corresponds to $\phi = .2$?

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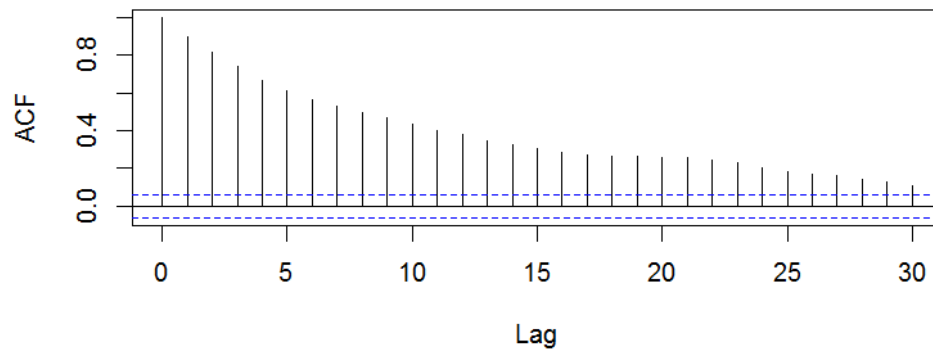
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Quiz, 2 questions

ACF of Candidate 1



ACF of Candidate 2



☒ Candidate 1

Correct

Good! We have a rapid decay. Recall that $\rho(k) = \phi^k$ so when $\phi = .2$ our ACF drops off rapidly.

☐ Candidate 2

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