

# Problem Set 1

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## Question 1 (Forecasting GDP Growth - 150 points)

Table 1: (a) estimated coefficients (including the intercept), coefficients' standard errors and coefficients' p-values

	<i>Dependent variable:</i>							
	data_xts							
	MA(1)	MA(2)	AR(1)	ARMA(1,1)	ARMA(1,2)	AR(2)	ARMA(2,1)	ARMA(2,2)
ma1	0.238*** (0.086)	0.222** (0.094)		-0.516 (0.375)	-0.719*** (0.119)		-0.870*** (0.102)	-1.059** (0.495)
ma2		0.159 (0.103)			-0.119 (0.097)			0.156 (0.410)
ar1			0.287*** (0.091)	0.740*** (0.284)	0.944*** (0.070)	0.251*** (0.094)	1.104*** (0.142)	1.290*** (0.483)
ar2						0.122 (0.095)	-0.149 (0.110)	-0.324 (0.453)
intercept	4.539*** (0.480)	4.535*** (0.529)	4.538*** (0.538)	4.491*** (0.706)	4.260*** (1.072)	4.527*** (0.605)	4.259*** (1.070)	4.268*** (1.064)
Observations	120	120	120	120	120	120	120	120

*Note:*

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01

Table 2: (b) Estimated BIC and AIC

	MA(1)	MA(2)	AR(1)	ARMA(1,1)	ARMA(1,2)	AR(2)	ARMA(2,1)	ARMA(2,2)
AIC	693.979	693.718	691.990	691.809	692.729	692.349	692.548	694.424
BIC	702.341	704.868	700.352	702.959	706.666	703.499	706.485	711.149

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