

Full Name: \_\_\_\_\_ ID# \_\_\_\_\_ Ser# \_\_\_\_\_

Q1. For a series of length 64, the sample partial autocorrelation are given as:

| <i>Lag</i>  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
|-------------|----------|----------|----------|----------|----------|
| <i>PACF</i> | 0.47     | -0.34    | 0.20     | 0.02     | -0.06    |

Which models should be considered in this case?

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Q2. Consider an AR(1) series of length 100 with  $\phi = 0.7$ .

- a) Would you be surprised if  $r_1 = 0.6$ ?
- b) Would  $r_{10} = -0.15$  be unusual?

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