## Please limit yourself to 4 hours time!

Place your submissions to the Submissions sub-folder with the naming convention: lastname\_firstname

## Goals

You are a data scientist at a large construction company. In order to submit more competitive bids for contracts, the head of analytics and data science would like you to work on forecasting core construction material costs. You have access to the pricing information (per unit, in dollars) for the company's past purchases of plywood, sheetrock, steel beams, rebar, and glass contracts over the past ten years in <u>csv format</u>.

Currently, the company is able to purchase futures contracts in a material for up to six months in advance. Thus, your manager is most interested in forecasting the price of each commodity up to six months into the future. In particular, your manager feels it would be really useful to understand when a commodity price is about to increase temporarily, in order to either buy the commodity early or wait until after the temporary increase.