Assume that your firm is considering whether or not to invest in a new factory. The factory will be built on land that your firm purchased two years ago for $500,000. The land could be sold today for $550,000. The cost to build the factory would be $2,000,000. If your firm builds the factory, half of the $2,000,000 cost would be paid today and half would be paid a year from today. Assume that the factory would start being depreciated a year from today and will fall into the 7-year MACRS class. When deciding whether or not to build the factory, your boss conducted a marketing study of whether there will be sufficient demand for the product. This study cost $100,000 and payment is due today. If the factory is built, revenues will equal $3,000,000 a year from today. Revenues will grow at a rate of 3% per year after these initial sales and will continue through 20 years from today. Operating the factory will generate fixed costs (mostly due to salaries) of $1,000,000 per year and variable costs (mostly due to cost of goods sold and electricity) equal to 45% of sales. Accounts receivable are expected to equal 25% of the current year’s sales and Inventory is expected to equal 35% of the next year’s sales. Accounts payable will equal 55% of inventory. If the factory is built, the cash balances the firm will need to hold will remain at $1,500,000. The factory will be funded with equity and with $1,500,000 of new bonds that will be issued at an interest rate of 8%. The firm’s tax rate equals 35%.

Set up to calculate the factory’s unlevered net income and free cash flow one year from today.